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FRANK GOULD, Vice-President.
VICTOR H. POWER, Treasurer.
I. S. FIELD, Secretary.

RICHARD H. EDMONDS,
Editor and General Manager.

EDWARD INGLE, Managing Editor.

ALBERT PHENIS,
General Staff Correspondent.

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ond-class matter.]

BALTIMORE, MARCH 6, 1913.

WHY MEN IN OTHER SECTIONS ARE STUDYING THE SOUTH.

I. E. Webster, secretary Board of
Public Works, Gainesville, Fla., in a
letter dated March 1, 1913, referring
to an advertisement in the MANUFACTURERS
RECORD for building an electric
light and water system in that city,
says:

The board does not think it necessary to
continue the publication. We have sent out
over fifty copies of the specifications already
as the result of the ad. in your paper.

Thus more than fifty concerns in
other sections are figuring on building
these systems in Gainesville, and in
doing so are carefully studying every-
thing relating to that town—its labor
supply, its available materials for con-
struction work, its climate, its progress,
etc. In this way Gainesville is being
made known to many who have not
known it before. In the last two
months the MANUFACTURERS RECORD has
published over 10,000 items in its Con-
struction Department about new enter-
prises, municipal undertakings, indus-
trial, railroad and financial and build-
ing operations, all of which brought the
South into direct relation with business
houses throughout the North and West.
These items have resulted in tens of
thousands, probably hundreds of thou-
sands of letters. Many men have by
them been led to study almost every
locality in the South to a greater or
less extent. This is one way in which
the MANUFACTURERS RECORD has for
thirty years been bringing hundreds of
thousands of people in other sections
into close business touch with the
South. The influence of this is beyond
estimate.

WIDELY RAMIFIED INFLUENCE OF THE SOUTH'S COTTON CROP.

"Cotton: The Southern Wool in the Warp of American Agriculture, Manufac-
turing and Commerce," is the striking title of one of the articles in "The South:
The Nation's Greatest Asset," to be issued March 27 by the MANUFACTURERS
RECORD. The article is significant in reflecting the influence of cotton not only
in this country, but in the world. In this comprehensive report on cotton there
are many facts of world-wide interest, a few of which may be mentioned here in
advance.

Produced upon 35,000,000 acres, or 11.9 per cent. of the 294,343,000 acres de-
voted to twelve leading crops of the country in 1912, the cotton crop, including
its seed, in that year had a value of \$1,000,000,000, equal to 20.4 per cent. of the
aggregate value, \$4,906,449,000, of those crops. Upon something more than one-
eighth of the land devoted to those crops in the whole country, the South pro-
duced one crop, cotton, having a value more than one-fifth of the aggregate value
of the twelve crops.

In the last census year, 1909, the value of all factory products in the United
States was \$20,672,052,000. In that year the value of the outputs of blast fur-
naces and iron and steel works and rolling mills was \$1,377,152,000, and the
value of cotton goods, including hosiery and knit goods, and of primary products
of cotton seed, was \$915,070,000. In the first-named industries 278,505 wage-
earners were employed, and in the second group 474,701.

The value of merchandise exported from the United States in the fiscal year
ended June 30, 1912, was \$2,204,322,409. Of the total, raw cotton represented
\$565,849,271, manufactures of cotton \$50,769,511 and cottonseed and its products
\$42,142,181, an aggregate of \$658,760,963, representing products of the cotton
plant, and 29.9 per cent. of the total value of all merchandise exports from the
country. In the thirty-three years between 1880 and 1912 there was exported
from the United States merchandise to the value of \$39,151,828,195, and of that
total \$9,685,282,138, or 24.7 per cent., was the value of Southern cotton exported.

In the thirty-three years the cotton crops of the South, including seed, had
an aggregate value of \$16,452,000,000, the output of all the gold mines of the
world was worth \$7,634,105,600, and the output of all the silver mines was worth
\$3,459,909,642. The thirty-three cotton crops had a value of \$8,894,400 greater
than the thirty-three years' gold production in the world and \$5,357,984,758
greater than the combined gold and silver production. In the same period the
value of exports of raw cotton from the South reached the sum of \$9,685,854,574,
or \$2,051,758,974 greater than the value of the world's gold production in the
same time.

In no year since 1880 has the combined output of all the gold mines and silver
mines in the world equaled in value the value of the South's cotton crop, with
its seed, and in only five of the thirty-three years was the output of all the gold
mines in the world sufficient to pay for the cotton exported from the United
States.

The value of merchandise exports from the United States in the thirty-three
years was greater by \$9,162,402,945 than the value of imports to this country,
and that sum was \$523,451,629 less than the value of the South's raw cotton
exported.

Southern cotton fields, now represented in 30 per cent. of annual export
merchandise values, are thus strikingly shown to be an essentially important
factor, not only in the agriculture of the United States, in the manufacturing
industries and commerce of the world, but in the basis of exchange.

Southern cotton mills alone are now consuming annually more cotton than
the South produced in 1868, more than all the mills of the whole country con-
sumed as late as 1896, and more than half the amount now consumed annually
by all the mills of the country. In all the South, now embracing sixteen States,
there were 687,066 active spindles in 1880, which used 111,777,177 pounds of
cotton, the spindles being 6.4 per cent. of the total number of active ones in the
United States and using 14.8 per cent. of the cotton used by all the mills in the
country. Last year the 11,858,600 active spindles in the South used 1,319,707,813
pounds of cotton, their number being 38.8 per cent. of those in all the mills of
the country, and the cotton used being more than 50 per cent. of the total quan-
tity consumed. Contemporaneously the active loom equipment of Southern mills
increased from 14,754, or 6.6 per cent. of the total of the country, to 252,279, or
35.5 per cent. of the total. These equipment statistics suggest not only the
multiplicity, but also the multiformity of the South's textile activities today,
producing a hundred different lines of goods, spun, woven and knit.

These facts clearly mark out the task of the South in this particular. It is,
of its own initiative, or in co-operation with capital from other parts, to take
advantage of its unsurpassed opportunities, to the end that by the time the
world shall be calling for an annual world crop of 42,000,000 bales the South
will be raising 30,000,000 of them, and instead of sending 65 per cent. of its crop
to other parts of the world for manufacturing, will be consuming that much at
home in making goods for the markets of the world. This brief condensation of
the pages devoted to cotton and its influence in world affairs illustrates the com-
prehensive way in which every phase of the material activities of the South is
covered in "The South: The Nation's Greatest Asset."

A RECORD YEAR IN SOUTHERN COMMERCE.

Through Southern ports there flowed
during 1912 a foreign commerce of
more than \$1,000,000,000, the bulk of
which was exports. It was a record
year in the value of exports for the
country and for the South. The total
value of exports of merchandise from
all Southern customs districts in the
twelve months of 1912 was \$858,986,-
279, an increase of \$142,730,115, or at
the rate of 19.9 per cent. over 1911,
while the increase for all the districts
in the rest of the country was \$163,-
961,132, or at the rate of 11.2 per cent.

One-third of the exports from South-
ern districts passed through Galveston,
Tex., which sent abroad goods to the
value of \$285,888,216. That sum was
more than twice as much as the value
of the merchandise exports from all
the Pacific coast districts of this coun-
try.

Galveston ranked second among the
districts in the value of exports and
New Orleans ranked third, with \$170,-
816,371, or \$31,298,062 more than the
value of all the exports from the Pa-
cific coast.

Baltimore ranked fourth with \$100,-
498,554, or \$44,739,143 more than San
Francisco.

Savannah, Ga., ranking fifth, ex-
ported to the value of \$85,447,496, or
\$12,448,062 more than Philadelphia, and
\$19,755,148 more than Boston.

Comparison by separate customs dis-
tricts of the value of exports in 1911,
1912, is made in the following table:

Exports from Southern Customs Districts.		
Customs districts.	1911.	1912.
Baltimore, Md.	\$94,546,755	\$109,498,554
Beaufort, N. C.	45,000	19,021,638
Brunswick, Ga.	14,906,652	15,899,232
Charleston, S. C.	19,828,418	13,899,232
Fernandina, Fla.	7,501,082	6,960,826
Georgetown, S. C.	8,328	2,503,715
Jacksonville, Fla.	2,195,319	8,706,625
Newport News, Va.	5,835,900	15,877,111
Norfolk, Va.	9,576,308	7,890
Richmond, Va.	13,692	115,598
St. Marys, Ga.	29,504	85,447,496
Savannah, Ga.	82,363,825	27,288,998
Wilmington, N. C.	24,081,123	770,983
Appalachicola, Fla.	630,399	285,888,216
Galveston, Tex.	197,174,811	2,030,712
Key West, Fla.	1,683,575	32,762,566
Mobile, Ala.	28,284,351	170,816,371
New Orleans, La.	153,615,150	9,392,888
Pearl River, Miss.	11,007,506	23,755,882
Pensacola, Fla.	20,863,369	24,492,554
Sabine, Tex.	23,453,560	900,000
St. Marks, Fla.	1,139,450	4,303,887
Tampa, Fla.	5,131,638	923,960
Brazos de Santiago, Tex.	824,532	12,444,688
Corpus Christi, Tex.	10,494,338	3,867,959
Paso del Norte, Tex.	6,026,843	3,485,812
Saluria, Tex.	3,455,625	308,594
Kansas City, Mo.	476,384	10,075
Louisville, Ky.	10,075	13,526
St. Louis, Mo.	2,752	278

Total..... \$716,256,264 \$858,986,379
United States..... \$2,082,526,746 \$2,399,217,993

In 1912 there were increases in the
value of exports at fifty-nine customs
districts and decreases at thirty-one.
Only one group of ports, the interior,
showed a decrease under 1911 and that
amounted only to \$170,035. The Gulf
ports had the greatest increase, from
\$443,003,809 to \$556,014,059, or by \$113,-
010,250, equal to 25.5 per cent. Next in
order were the Atlantic coast districts,
the North Atlantic increasing from

\$964,648,604 to \$1,028,013,544, or by \$63,364,940, equal to 6.6 per cent., and the South Atlantic, from \$251,951,906 to \$280,927,503, or by \$28,975,597, equal to 11.1 per cent. Northern border districts increased from \$297,744,911 to \$364,206,411, or by \$66,461,500, equal to 22.3 per cent.; Pacific coast districts from \$108,349,830 to \$139,517,709, or by \$31,167,879, equal to 28.8 per cent.; Arizona district from \$5,523,915 to \$8,493,950, or by \$2,970,035, equal to 53.8 per cent., and Southern districts on the Mexican border from \$20,811,338 to \$21,722,419, or by \$911,081, equal to 4.4 per cent.

The import business at Southern ports has been of slow development, as is the case with other groups of ports, 72 per cent. of the imports in 1912 having entered the United States by way of New York, Boston and Philadelphia. But the value of imports in Southern customs districts was greater than the value in the Pacific coast districts and greater than the value in Northern border districts. The changes in the two years are shown in the following table:

Imports by Southern Customs Districts

Customs districts.	1911.	1912.
Alexandria, Va.....	\$1,500	.....
Baltimore, Md.....	28,382,580	\$27,901,843
Brunswick, Ga.....	203,335	85,888
Charleston, S. C.....	6,433,512	4,066,250
Fernandina, Fla.....	32,698	82,023
Georgetown, D. C.....	1,062,780	1,226,204
Jacksonville, Fla.....	1,327,693	1,262,302
Newport News, Va.....	1,982,008	1,896,067
Norfolk, Va.....	2,009,915	1,734,177
Panama, N. C.....	1,899	.....
Petersburg, Va.....	356,251	398,475
Richmond, Va.....	911,822	805,239
St. Augustine, Fla.....	16,987	7,294
Savannah, Ga.....	6,229,817	3,940,064
Wilmington, N. C.....	3,728,183	2,796,961
Appalachicola, Fla.....	1,074	3
Galveston, Tex.....	3,710,854	5,937,397
Key West, Fla.....	1,424,917	1,057,327
Mobile, Ala.....	4,038,841	4,946,023
New Orleans, La.....	68,012,652	83,354,480
Pearl River, Miss.....	61,851	110,900
Pensacola, Fla.....	1,633,715	2,233,111
Sabine, Tex.....	150,704	1,585,687
St. Marks, Fla.....	12,584	10,245
Tampa, Fla.....	5,354,694	4,782,447
Brazos de Santiago, Tex.....	237,325	342,189
Corpus Christi, Tex.....	1,345,513	1,876,460
Paso del Norte, Tex.....	3,512,828	3,704,062
Saluria, Tex.....	5,759,446	4,526,065
Atlanta, Ga.....	219,086	290,785
Chattanooga, Tenn.....	47,489	59,680
Houston, Tex.....	572,847	636,731
Kansas City, Mo.....	1,780,311	1,883,957
Knoxville, Tenn.....	9,897	17,156
Louisville, Ky.....	820,850	761,681
Memphis, Tenn.....	234,276	199,129
Nashville, Tenn.....	94,516	67,000
St. Joseph, Mo.....	198,179	281,460
St. Louis, Mo.....	6,225,391	6,477,917

Total.....\$158,141,820 \$171,233,180
United States.....\$1,532,359,160 \$1,813,133,355

SUPPOSE CASSATT HAD NEVER BEEN PRESIDENT OF THE PENNSYLVANIA RAILROAD.

Some years ago when President Cassatt of the Pennsylvania Railroad, with the broad vision which enabled him to see so far ahead of what most of the railroad people of the day could see, undertook to practically duplicate the transportation facilities of the Pennsylvania Railroad he had many critics. Some Philadelphia bankers and some papers seriously questioned whether he had not become unbalanced. His proposed expenditures looked to these critics like daring ventures not based on sound conditions. Cassatt before his death was quoted as having said that when he planned these enlargements he thought he was providing for twenty-five years of growth, but that he was realizing then that he had hardly provided for ten years' increase of business. As his achievements in the expansion of the facilities of the Pennsylvania Railroad are studied one may well wonder what would have happened to that road and to the country if the presidential chair had been held by a man of small vision and less ability to achieve. If the Pennsylvania road had during the last ten or twelve

years provided only for a moderate growth and carried out its plans on such a scale as the ordinarily conservative banker or railroad president would have felt to be safe and sound, that road would long ago have had a physical breakdown to its own great injury and to the injury of the whole country. What would have happened to the Pennsylvania has happened to a number of other railroads because they did not have at their heads men of such broad view as Cassatt, and if they had the power to foresee the future they did not have the ability to secure the money needed. It is interesting to bear these facts in mind in studying the annual report of the Pennsylvania Railroad as published in this issue of the MANUFACTURERS RECORD.

A WALL STREET "HIKE" TO WASHINGTON.

Having time to be in a flippant mood, owing to the dullness and depression of the stock market, a Wall Street man is credited with suggesting that the folk interested in the business of that part of New York organize a procession like the suffragettes and march upon Washington to demand representation

Americans generally are not to be excelled in their consideration for and treatment of women. It is a pity that there is no likelihood of realizing such a delectable display as the Wall Street man conceives. It would constitute an agreeable diversion from the troubles in Mexico, the inauguration, and other things.

STEEL RAIL PRODUCTION AND ITS RELATION TO THE COUNTRY'S GROWTH.

Though the steel rail production of the United States last year made an increase of 505,125 tons, or 17.8 per cent., over the production of the preceding year, practically the entire increase was in open-hearth rails. The development of the open-hearth industry, which is of vital importance to the South, has been very rapid. In former days, when the Bessemer rail had the command of the market, the Lake Superior iron-ore regions, through their Bessemer ores, gave to Northern and Western steel-makers a great advantage over Southern iron and steel producers, for the Southern ores were not available for Bessemer steel. With the proved superiority of the open-hearth steel and

naces over Southern furnaces the ores of the South have intrinsically made a very great advance in value, even if this value has not yet been capitalized in the way of higher prices. Under these conditions we have reached a time when plans should be made for the larger utilization of Southern ores in the production of steel.

The detailed report of the production of steel rails in the United States, given elsewhere in this issue, shows that we are still far short of the rail output of 1906. In that year the total production of all kinds of rails was 3,977,887 tons, or 750,000 tons more than the production last year. This fact in itself strikingly illustrates the shortage in railroad building and railroad improvement work as compared with 1906. With an increase of about 10,000,000 to 12,000,000 in our population and a large growth in iron and steel output, in agricultural production and general trade, we are consuming nearly 20 per cent. less of steel rails than in 1906.

A SANE OUTLOOK UPON PRESSURING NATIONAL PROBLEMS.

With brevity, soulful of wit, President Wilson sketched the program of his administration. He epitomized details thus:

We have itemized with some degree of particularity the things that ought to be altered, and here are some of the chief items: A tariff which cuts us off from our proper part in the commerce of the world violates the just principles of taxation and makes the Government a facile instrument in the hands of private interests; a banking and currency system based upon the necessity of the Government to sell its bonds 50 years ago, and perfectly adapted to concentrating cash and restricting credits; an industrial system which, take it on all its sides, financial as well as administrative, holds capital in leading strings, restricts the liberties and limits the opportunities of labor, and exploits without renewing or conserving the natural resources of the country; a body of agricultural activities never yet given the efficiency of great business undertakings or served as it should be through the instrumentality of science taken directly to the farm, or afforded the facilities of credit best suited to its practical needs; watercourses undeveloped, waste places unreclaimed, forests untended, fast disappearing without plan or prospect of renewal; unregarded waste heaps at every mine. We have studied as perhaps no other nation has the most effective means of production, but we have not studied cost of economy as we should either as organizers of industry, as statesmen or as individuals. Nor have we studied and perfected the means by which Government may be put at the service of humanity, in safeguarding the health of the nation, the health of its men and its women and its children, as well as their rights in the struggle for existence.

These are big problems requiring sane judgment and wide and deep knowledge for their safe and beneficial handling. The President would have not destruction, but restoration. He would have evil corrected without impairing good. He would purify and humanize every process of our common life without weakening or sentimentalizing it. Recognizing some of the things that ought to be done, he would—

Not leave the others undone, the old-fashioned, never-to-be neglected fundamental safeguarding of property and of individual right.

That is a very, very reliable anchor-though, a fine guide between the two extremes of danger which have been approached in the past decade in consequence of efforts to regenerate American society through governmental activities.

The one has assumed that a profound conviction on the part of any group of persons, great or small, as to the justice and equity of any single moral or economic idea is sufficient ex-

AS VIEWED BY A LEADING MANUFACTURER.

Frictionless Metal Co.,
Chattanooga, Tenn., February 28, 1913.

Editor Manufacturers Record, Baltimore, Md.:

"The South: The Nation's Greatest Asset" is composed of 16 States, each one of which owes much of its progress and prosperity for the past 25 years to the Manufacturers Record. We live in an age when a country, like a business, must be advertised—truthfully and persistently—to succeed. The publicity you have given the South has been based on facts, and your still increasing never-ending fight for the most favored section of the round earth has been strenuous, strong and successful.

Your forthcoming book, "The South: The Nation's Greatest Asset," will be a fitting climax to the Manufacturers Record's quarter of a century in Southern publicity, and if each of the 16 States of the South should vote your journal a million dollars as pay for services rendered, the price would be cheap. That, however, is as impossible as it would be unexpected by you, but the people of the South will show their appreciation with a generous response, while the world will clamor for your book when it is published—so do not make a mistake to limit the edition too close to your subscription list. It will take a million copies to meet the demand after publication, for "every man who works with hand or brain or money" will need it.

ROBERT H. EVANS, General Manager.

at the Capitol and recognition of their rights.

Now, that is something like! It would be a gala show to see a parade of denizens from New York's great speculative quarter tramping over the highways of New Jersey, Pennsylvania, Delaware and Maryland to the seat of government to protest their claims before Congress and demand consideration at the hands of that august body of Senators and Representatives. Were the New Yorkers to march in their accustomed everyday attire, the parade would be all the more interesting, but it is to be feared that many miles would not be covered before the majority of them would cast aside patent leathers for humble brogans in order to be able to tramp in comfort, if not dignity. No doubt the members of the "curb" market would show up superior under the trials of winter-time highway travel on foot; they are used to all sorts of rough weather on Wall Street, as well as to being on their feet for many hours every day, while the members of the large exchange within doors, although none the less active, might find the open-air work on mud-lined roads too much for their constitutions.

Talk about your circus parades! They would fade into the commonplace as compared with a Wall Street procession, and the suffragettes would be simply nowhere, notwithstanding that

the gradual decrease in the production of Bessemer rails, this particular advantage of the North and West over the South has been eliminated, and the open-hearth steel made in Alabama ranks as equal to the best produced in the United States. The decline of the Bessemer steel rail and the growth of the open-hearth rail has been very striking, as shown in the following figures:

Production in years.	Bessemer rails. Tons.	Open-hearth rails. Tons.
1906.....	3,791,459	186,413
1907.....	3,380,025	252,704
1908.....	1,349,153	571,791
1909.....	1,767,171	1,256,674
1910.....	1,884,442	1,751,359
1911.....	1,053,420	1,678,923
1912.....	1,099,926	2,105,144

From a production in 1906 of 3,791,459 tons, the largest in any year, the Bessemer rail industry has rapidly declined, until last year the production was only 1,099,926 tons, or considerably less than one-third as large as in 1906. In the same period, however, the production of the open hearth or basic rail has increased from 186,413 tons to 2,105,144 tons. In 1906 the production of Bessemer rails was twenty times as great as the output of open-hearth rails, whereas in 1912 the output of open-hearth rails was nearly twice as great as the output of Bessemer rails.

These facts are of great interest to the South. With the passing away of the advantages which the Bessemer ores gave to Northern and Western fur-

case for the immediate crystallization into law of that idea and regardless of the possibility that what is thought by the promoters to be an original concept may be merely a windfall from the scrap-heap of the discards of experience.

The other, preferring to travel in a circle, rather than risk tangential movement, has been prone to view with suspicion any new idea whatever as containing the germs of a menace, and not infrequently, in blindfold belief that a volcano can be suppressed by capping it with reinforced concrete, has used against the unorganized and variously misdirected power of numbers the force of alert concentration to thwart in the act of legislation the very purpose sought in the law.

The end has been essentially the same in both instances. In seeking to do things that ought to be done, other things that ought to be done have been left undone, and notoriously the old-fashioned fundamental safeguarding of property and of individual right has been neglected, if not utterly scorned.

President Wilson mentioned not a single chief item in the program of restoration which cannot be righted without infringing upon a single principle of fundamental right.

Some folks at both extremes may imagine that they are mistreated in the application, without respect for persons, of the rule of sanity and equity to the conduct of affairs. They should learn to know that absence of restraint upon wrongdoing in the past does not make wrongdoing a vested right, on the one hand, and on the other, that remedies which are worse than the disease are just as pernicious for the body politic as for the physical.

Right in Washington and within the field of governmental activities a beginning must be made of the work of restoration without injury. There is hardly a single department of the Federal Government which is not bulging with the improper growths of long neglected evil practices and improper policies affecting seriously the welfare and happiness of the whole people of the country and tending to weaken their moral stamina. From the representatives of the Government itself, thoughtlessly or deliberately misusing and abusing the power temporarily entrusted to them, undertaking unconstitutional enterprises or extra constitutional projects hostile to the spirit of the Constitution, have come in the past ten or fifteen years greater assaults upon the old-fashioned safeguards of property and individual right than from any other source.

In rectifying that situation, President Wilson will gain a powerful lever for his mighty task of the next four years.

SOME OF THE LEADERS IN SOUTHERN UPBUILDING.

On pages 92-93 in this issue is published a list of nearly 500 business concerns — manufacturers, railroads, banks and bankers, trust companies, insurance companies, towns and cities and other business institutions covering a wide range of activities—who will appear in the advertising pages of "The South: The Nation's Greatest Asset."

Such a remarkable list of advertisers, having in mind the extent of their aggregate operations and the relation they bear to the industry and trade of a section, has probably never before appeared in any publication. This list is worth careful study. Every

reader of the MANUFACTURERS RECORD can to advantage turn to the pages on which it appears and study the facts in regard to these advertisers and their influence in the upbuilding of the whole South.

The presentation of the varied resources and activities of this section as set forth in the advertisements of the 450 to 500 concerns in "The South: The Nation's Greatest Asset," to appear on March 27, will contain a vast fund of information about what is being done by the South, giving many specific facts and showing by this comprehensive display a splendid illustration of what the men and the institutions of the South, imbued with the energy and activity typified in these advertisements, are doing for this section. Turn to pages 92-93 and study the list as there presented.

INDUSTRIAL ACTIVITIES SOUTH.

During February the Construction Department of the MANUFACTURERS RECORD published 5013 items of general interest to all concerned with Southern enterprises along industrial, financial, railroad and building lines, etc. These items, added to others published in January, make a total of more than 10,000 such statements furnished their readers by the *Daily Bulletin* and the MANUFACTURERS RECORD, in their respective daily and weekly columns, since the first of this year—a fine two months' summary of plans and progressive developments in the South.

Following our custom, we have noted a number of "Burned" items, these always more than suggesting immediate needs for machinery, materials, plans and construction work. Also a large number of definitely stated needs have been shown in the nearly 600 requests in the "Machinery, Proposals and Supplies Wanted" columns for February, these, as usual, having contained some wants from readers in foreign countries.

The detailed statement for February is as follows:

Industrial and Developmental.

Bridges, Culverts, Viaducts.....	48
Canning and Packing Plants.....	28
Clayworking Plants.....	24
Coal Mines and Coke Ovens.....	43
Concrete and Cement Plants.....	6
Cotton Compresses and Gins.....	22
Cottonseed-oil Mills.....	16
Electric Plants.....	29
Franchise and Irrigation.....	129
Fertilizer Factories.....	9
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Foundry and Machine Plants.....	39
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Ice and Cold-storage Plants.....	41
Iron and Steel Plants.....	9
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Miscellaneous Enterprises.....	99
Miscellaneous Factories.....	204
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Total for February.....	5,013
Previously detailed for January.....	5,429
Total to March.....	10,482

Production of All Kinds of Rails in the United States in 1912.

The Bureau of Statistics of the American Iron and Steel Institute has received from the manufacturers complete statistics of the production of all kinds of rails in the United States in 1912. For 1911 and all previous years the statistics given below were compiled by the American Iron and Steel Association.

The production of all kinds of rails in the United States in 1912 amounted to 3,327,915 tons, against 2,822,790 tons in 1911, an increase of 505,125 tons, or over 17.8 per cent. Included in the total for 1912 are 174,004 tons of girder and high T steel rails for electric and street rail-

States—Gross tons.	1907.	1908.	1909.	1910.	1911.	1912.
N. Y., N. J. and Pa.....	37,022	184,059	335,956	445,139	579,924	712,056
Md., Ga., Ala., and Ohio.....	152,163	251,956	344,842	570,878	509,950	600,113
Ind., Ill., Wis., Col., and Cal.	63,518	135,776	575,976	735,342	587,949	792,975
Total.....	252,703	571,791	1,256,674	1,751,359	1,676,923	2,105,144

ways, as compared with an output of 205,409 tons of similar rails in 1911.

Of the total production of rails in 1912, 3,165,939 tons were rolled from Bessemer, open-hearth and electric steel blooms or billets; 42,586 tons were rolled from new seconds, defective new rails and steel crop ends, and 119,390 tons were re-rolled from old steel rails or were renewed steel rails. No iron rails are reported for 1912. In the following table the production of all kinds of rails in 1912 is given by States in gross tons:

States—Gross tons. All kinds of rails.	1909.	1910.	1911.	1912.
New York, New Jersey, and Maryland.....	387,128	445,139	579,924	712,056
Pennsylvania.....	345,537	570,878	509,950	600,113
West Virginia, Alabama, and Ohio.....	93	575,976	735,342	587,949
Indiana, Ill., Wis., Col., and Wash.....	388,808	792,975	49,462	1,231,335
Total for 1912.....	1,099,926	2,105,144	122,845	3,327,915
Total for 1911.....	1,053,420	1,676,923	92,447	2,822,790

Included in the 122,845 tons of rails rolled in 1912 and classified as electric and re-rolled steel are 3455 tons of rails rolled from electric steel and 119,390 tons of re-rolled rails or rails rolled from old steel rails which the makers were unable to classify as Bessemer or open-hearth. Twenty-four works in 12 States rolled or re-rolled rails in 1912, against 25 works in 11 States in 1911. The production of all kinds of rails by States is given in the following table from 1909 to 1912, in gross tons:

States—Gross tons. All kinds of rails.	1909.	1910.	1911.	1912.
New York, New Jersey, and Maryland.....	621,372	711,975	490,989	585,817
Pennsylvania.....	855,707	570,878	509,950	600,113
West Virginia, Alabama, and Ohio.....	367,039	496,716	447,965	622,121
Ind., Ill., Wis., Col., Wash., and Cal.....	1,179,726	1,440,638	1,044,242	1,231,305
Total.....	3,023,845	3,636,661	2,822,790	3,327,915

Bessemer Steel Rails.

The production of Bessemer steel rails in 1912 amounted to 1,099,926 tons, against 1,053,420 tons in 1911, an increase of 46,506 tons. Of the total in 1912, 1,070,480 tons were rolled from ingots and 29,446 tons were rolled from new seconds, defective new rails, crop ends, etc. Illinois was the largest maker of Bessemer rails in 1908, 1909, 1910, 1911 and 1912, but Pennsylvania was the largest maker in 1907. The maximum production of Bessemer rails was reached in 1906, when 3,791,459 tons were produced. The year of next largest production was 1907, when the output was 3,380,025 tons. The following table gives the production of Bessemer rails by States in gross tons from 1907 to 1912:

States.	1907.	1908.	1909.	1910.	1911.	1912.
N. Y., N. J., and Md.....	1,654,489	286,739	586,193	508,353	284,239	367,128
Pennsylvania.....	1,903,972	315,547	553,719	591,473	552,341	345,887
W. Va., Ga., Ala., Ohio, Ind., and Ill.....	978,685	576,949	627,259	724,616	416,859	388,961
Wis., Col., Cal., and Wash.....	252,828	79,836				
Total.....	3,380,925	1,349,153	1,767,171	1,884,442	1,053,420	1,099,926

Open-Hearth Steel Rails.

The production of open-hearth steel rails in 1912 amounted to 2,105,144 tons, against 1,676,923 tons in 1911, an increase of 482,221 tons, or over 25.5 per cent. Of the total in 1912, 2,092,004 tons were rolled from ingots and 13,140 tons were rolled from new seconds, defective new rails, crop ends, etc. Almost all were rolled from basic steel. The maximum production was reached in 1912. The year of next largest production was 1910. The following table gives the production by States since 1907:

States—Gross tons.	1907.	1908.	1909.	1910.	1911.	1912.
N. Y., N. J. and Pa.....	37,022	184,059	335,956	445,139	579,924	712,056
Md., Ga., Ala., and Ohio.....	152,163	251,956	344,842	570,878	509,950	600,113
Ind., Ill., Wis., Col., and Cal.	63,518	135,776	575,976	735,342	587,949	792,975
Total.....	252,703	571,791	1,256,674	1,751,359	1,676,923	2,105,144

It will be noticed that the production of open-hearth rails in 1912 was almost twice that of Bessemer rails in the same year.

Electric Steel Rails.

In 1912 the production of rails rolled from steel made in electric furnaces amounted to 3455 tons, as compared with 462 tons in 1911. In 1909 and 1910 small quantities of rails were also rolled from electric steel, but these rails were included with the Bessemer and open-hearth rails reported for these years.

Bessemer rails.	Open-hearth rails.	Electric re-rolled steel and iron.	Total Gross tons.
1,099,926	2,105,144	122,845	3,327,915
1,053,420	1,676,923	92,447	2,822,790

Re-rolled and Renewed Steel Rails.

In 1912 the production of steel rails rolled from new seconds, defective new rails, crop ends, old steel rails, etc., including renewed rails, amounted to 161,976 tons, of which 42,586 tons were rolled from new seconds, etc., and 119,390 tons were renewed rails or were re-rolled from old steel rails. Of the 42,586 tons rolled from new seconds, etc., 29,446 tons were rolled from Bessemer steel and 13,140 tons were rolled from open-hearth steel, and

are therefore included in the totals given for Bessemer and open-hearth rails for that year. But, as the 119,390 tons of rails rolled from old steel rails in 1912, and the renewed rails as well, could not be classified by the manufacturers, they are not included in the Bessemer or open-hearth rail output for that year, but are grouped under the general heading of electric and re-rolled steel rails. Prior to 1911 all rails of this class are included with Bessemer or open-hearth steel rails.

Iron Rails.

No iron rails were rolled in 1912. In 1911 the production was 234 tons, all rolled in Illinois, and all weighing less than 45 pounds to the yard, against 230 tons in 1910.

Weight Per Yard of Rails.

The following table gives the production of all kinds of rails in 1912, classified according to their weight per yard:

Kinds of rails—Gross tons.	Under 45 pounds.	45 pounds and less than 85.	85 pounds and over.	Total.
Open-hearth steel rails.....	75,203	488,695	1,541,246	2,105,144
Bessemer steel rails.....	103,826	591,744	404,356	1,099,926
Electric and other steel rails.....	69,643	38,153	15,049	122,845
Iron rails.....	None.	None.	None.	None.
Total for 1912.....	248,672	1,118,592	1,960,651	3,327,915
Total for 1911.....	218,758	1,067,696	1,536,336	2,822,790

The production in 1912 of rails weighing under 45 pounds to the yard shows an increase of 29,914 tons as compared with 1911; rails weighing 45 pounds and less than 85 pounds show an increase of 50,896 tons, and rails weighing 85 pounds and over show an increase of 424,315 tons. In 1912 over 41 per cent. of the rails weighing less than 45 pounds to the yard, nearly 53 per cent. of the rails weighing 45 pounds and less than 85 pounds, and over 20 per cent. of the rails weighing over 85 pounds were rolled from Bessemer steel, while in the same year over 30 per cent. of the rails weighing less than 45 pounds per yard, over 43 per cent. of the rails weighing 45 pounds and less than 85 pounds, and over 78 per cent. of the rails weighing 85 pounds and over were rolled from open-hearth steel.

Production and Consumption of All Kinds of Rails in the United States from 1880 to 1912.

The annual consumption of rails in the United States is approximately ascertained by adding the quantity imported to the total production and deducting the quantity exported. The following table gives the approximate consumption, in gross tons, of all kinds of rails in the 33 years from 1880 to 1912:

Years.	Production—Gross tons.	Imports.	Deduct exports.	Approximate consumption.
1880.....	440,859	864,353	259,643	1,045,569
1881.....	436,233	1,210,285	344,929	1,291,589
1882.....	293,459	1,304,392	200,113	1,398,738
1883.....	57,994	1,156,911	34,801	1,279,094
1884.....	22,821	999,367	2,829	1,019,365
1885.....	13,228	963,750	2,189	974,789
1886.....	21,142	1,579,395	41,587	1,658,950
1887.....	20,591	2,119,049	137,839	2,001,801
1888.....	12,725	1,390,975	549	1,388,771
1889.....	9,159	1,513,045	6,037	1,516,227
1890.....	13,882	1,871,425	204	1,885,003
1891.....	8,240	1,298,936	253	1,306,943
1892.....	10,437	1,541,407	347	1,551,844
1893.....	6,090	1,130,368	2,888	1,133,570
1894.....	4,674	1,017,098	300	1,021,772
1895.....	5,810	1,300,325	1,447	1,304,688
1896.....	4,347	1,117,663	7,796	1,124,014
1897.....	2,872	1,645,020	415	1,642,617
1898.....	3,319	1,977,922	1,981,241	1,981,241
1899.....	1,592	2,271,108	2,272,700	2,272,700
1900.....	1,685	2,384,987	2,385,682	2,385,682
1901.....	1,730	2,872,909	2,874,639	2,874,639
1902.....	6,512	2,941,421	63,522	2,947,933
1903.....	667	2,991,810	95,555	2,992,477
1904.....	871	2,283,840	37,776	2,284,711
1905.....	318	3,375,611	17,278	3,375,929
1906.....	15	3,977,872	4,943	3,977,887
1907.....	925	3,632,729	3,633,654	3,633,654
1908.....	71	1,920,944	1,921,015	1,921,015
1909.....	.....	3,023,845	3,023,845	3,023,845
1910.....	230	3,635,801	7,861	3,635,801
1911.....	234	3,327,915	3,327,915	3,327,915
1912.....	.....	3,327,915	3,327,915	3,327,915

Weight of All Kinds of Rails from 1897 to 1912.

The following table gives the production of all kinds of rails from 1897 to 1912 according to the weight of the rails per yard. Girder and high T steel rails for electric and street railways are included in the total. The maximum production of rails was reached in 1906. The year of next largest production was 1910:

Years—Gross tons.	Under 45 pounds per yard.	45 pounds and less than 85.	85 pounds and over.	Total.
1897.....	88,896	1,223,435	335,561	1,647,892
1898.....	123,881	1,404,150	453,210	1,981,241
1899.....	133,826	1,559,340	579,524	2,272,700
1900.....	157,531	1,626,093	600,658	2,384,282
1901.....	155,406	2,040,884	645,162	2,841,452
1902.....	261,887	1,603,688	1,168,127	2,992,477
1903.....	291,883	1,320,677	672,151	2,284,711
1904.....	228,252	1,601,624	1,546,063	3,375,929
1905.....	284,612	1,749,650	1,943,625	3,977,887
1906.....	295,838	1,569,985	1,767,831	3,633,654
1907.....	183,869	687,632	1,049,514	1,921,015
1908.....	255,726	1,024,856	1,743,263	3,023,845
1909.....	260,709	1,275,339	2,099,983	3,635,801
1910.....	218,758	1,067,696	1,536,336	2,822,790
1911.....	248,672	1,118,592	1,960,651	3,327,915
1912.....	.....	.....	.....	.....

Production of Rails by Processes.

In the following table the production of all kinds of rails from 1897 to 1912 is given by processes in gross tons of 2240 pounds. Of the total production of rails

in 1912, about 33.05 per cent. were rolled from Bessemer steel, about 63.25 per cent. were rolled from acid and basic open-hearth steel, and about 3.70 per cent.

Under 45 pounds.	45 pounds and less than 85.	85 pounds and over.	Total.
75,203	488,695	1,541,246	2,105,144
103,826	591,744	404,356	1,099,926
69,643	38,153	15,049	122,845
None.	None.	None.	None.
248,672	1,118,592	1,960,651	3,327,915
218,758	1,067,696	1,536,336	2,822,790

were rolled from electric steel and from old steel rails. As previously stated, no iron rails were rolled in 1912 :

were rolled from electric steel and from old steel rails. As previously stated, no iron rails were rolled in 1912:

Years—Gross tons.	Bessemer.	Open-hearth.	*Iron and all other.	Total.
1897.....	1,644,520	500	2,872	1,647,892
1898.....	1,976,702	1,220	3,319	1,981,241
1899.....	2,270,585	523	1,592	2,272,700
1900.....	2,383,654	1,333	695	2,385,682
1901.....	2,870,816	2,093	1,730	2,874,639
1902.....	2,935,392	6,029	6,512	2,947,933
1903.....	2,946,756	45,654	667	2,992,477
1904.....	2,137,957	145,883	871	2,284,711
1905.....	3,192,347	183,264	318	3,375,929
1906.....	3,791,459	186,413	15	3,977,887
1907.....	3,390,025	252,704	925	3,633,654
1908.....	1,349,153	571,791	71	1,921,015
1909.....	1,767,171	1,256,674	.....	3,023,845
1910.....	1,884,442	1,751,359	230	3,635,801
1911.....	1,053,420	1,676,923	192,447	2,822,790
1912.....	1,099,926	2,105,144	122,845	3,327,915

*Iron rails only from 1897 to 1910, inclusive. Include 234 tons of iron rails in 1911, but none in 1912; also 462 tons in 1911 and 345 tons in 1912 of rails rolled from electric steel; also 91,751 tons in 1911 and 119,390 tons in 1912 of renewed rails or rails re-rolled from old steel rails which the manufacturers could not classify as Bessemer or open-hearth steel rails.

Production of Alloy Steel Rails.

Included in the 3,327,915 tons of steel rails rolled in 1912 are 149,267 tons of alloy rails, against 153,989 tons in 1911. The following table gives the production of titanium, manganese and other alloy steel rails by processes from 1909 to 1912:

Alloy rails—Gross tons.	Bessemer.	Open-hearth and electric.	Total.
Titanium steel rails.....	103,941	37,832	141,773
Manganese, copper, and nickel.....	4,933	2,561	7,494
Total for 1912.....	108,874	40,393	149,267
Total for 1911.....	115,459	38,539	153,989
Total for 1910.....	229,935	27,389	257,324
Total for 1909.....	35,699	13,696	49,395

1,000,000 YARDS SAND FILLING.**To Reclaim About Two Miles of Water Front.**

Carl G. Fisher, Miami, Fla. (president of Prestolite Co., Indianapolis, Ind.), wires the MANUFACTURERS RECORD that he has 1,000,000 yards of first-class sand filling to do within the next four months, and desires names and addresses of large dredging companies in the vicinity of Miami who are in a position to estimate on this work. The plan embraces the reclamation of about two miles of water

Bessemer.	Open-hearth.	*Iron and all other.	Total.
1,644,520	500	2,872	1,647,892
1,976,702	1,220	3,319	1,981,241
2,270,585	523	1,592	2,272,700
2,383,654	1,333	695	2,385,682
2,870,816	2,093	1,730	2,874,639
2,935,392	6,029	6,512	2,947,933
2,946,756	45,654	667	2,992,477
2,137,957	145,883	871	2,284,711
3,192,347	183,264	318	3,375,929
3,791,459	186,413	15	3,977,887
3,390,025	252,704	925	3,633,654
1,349,153	571,791	71	1,921,015
1,767,171	1,256,674	.....	3,023,845
1,884,442	1,751,359	230	3,635,801
1,053,420	1,676,923	192,447	2,822,790
1,099,926	2,105,144	122,845	3,327,915

front, with 12 to 15 feet of clear sand available. Mr. Fisher was reported in January as having purchased for development 200 acres of land, fronting 1800 feet on the Atlantic Ocean and 1800 feet on Biscayne Bay, near Miami.

Bessemer.	Open-hearth and electric.	Total.
103,941	37,832	141,773
4,933	2,561	7,494
108,874	40,393	149,267
115,459	38,539	153,989
229,935	27,389	257,324
35,699	13,696	49,395

Opportunities at Attalla.

Industrial Club,
Attalla, Ala., February 28.

Editor Manufacturers Record:

The potentialities of the South surpass the comprehension of man, and especially here in this rich section of mineral and fertile soils in Northeast Alabama. "In the infancy of its development." While this section is developing very fast industrially and agriculturally, probably no section in the world today offers better advantages and opportunities for migration and investment of capital.

Attalla is on the main line of the Alabama Great Southern and at the crossing of the Louisville & Nashville, Nashville, Chattanooga & St. Louis and Southern Railway lines, and also has the Attalla, Alabama City & Gadsden Railway, an electric line with a 30-minute schedule from the union depot through Alabama City to Gadsden, a distance of five miles, serving approximately a population of 25,000.

A new bank to be known as the Farmers and Merchants' Bank is about ready to open for business. There is a banking institution already established, the Bank of Attalla. The Attalla Compress & Storage Co. has about completed the building and equipment of its new cotton compress, and is contemplating building a large ginny to be ready for next season's cotton business. This will probably lead to the building of a cottonseed-oil mill, all of which should prove paying investments. The Peacock Car and Car Wheel Works is making headway in locating its plant at Attalla.

While Attalla has quite a number of industrial establishments and splendid wholesale and retail houses, there is plenty of room and good opportunities for many more. A fine cotton-yarn mill located at Attalla to spin the fine grades of staple cotton raised in this section, a cottonseed-oil mill would prove a paying

proposition; a brick and tile factory, tin shop, harness factory, stovepipe foundry and many other industrial plants would prove good investments. There is an opportunity for the building of an up-to-date modern hotel, as only recently two of the leading hotels were burned. The right man with capital will find a splendid opportunity for building a modern hotel in Attalla, and it should prove a good investment, as all of the railroads leading into Attalla furnish a daily passenger service of 22 passenger trains.

E. V. BRINDLEY, Secretary.

In James M. Swank's Honor.

At the regular monthly meeting of the directors of the American Iron and Steel Institute on Friday, February 28, 1913, the following resolutions were unanimously adopted:

"Whereas, on December 31, 1912, after 40 years of service, Mr. James M. Swank resigned his office of secretary and general manager of the American Iron and Steel Association;

"And, whereas, on January 1, 1913, the work of the American Iron and Steel Association was taken over by the American Iron and Steel Institute, whose members were generally interested in and connected with the American Iron and Steel Association;

"Be it Resolved, That the directors of the American Iron and Steel Institute hereby record their profound appreciation of the fidelity and skill with which Mr. Swank discharged the duties of his office during that long and important period, and also their high estimate of his character as a man.

"And Resolved, further, That these resolutions be engrossed in duplicate, one copy to be sent to Mr. Swank and the other to be framed and hung on the wall of the Institute boardroom."

New Steamship Company for Galveston.

The increasing amount of freight which demands shipping facilities from Galveston to Mexican ports has resulted in the organization of the Gulf Coast Fruit & Steamship Co. of Galveston, Tex., with R. T. Burge, president; E. C. Hodges, vice-president; W. M. Sturges, secretary, and W. L. Pierce, treasurer. The steamship Alabama will arrive at Galveston with a cargo from Cuba on March 15, and will be reloaded with lumber by the Gulf Coast Fruit & Steamship Co. for Puerto, Mexico. After discharging the lumber at that point the vessel will proceed to the extensive banana plantations of the company located in that vicinity. A cargo of 20,000 bunches of bananas will be taken on board and transported to Galveston. Two round trips will be made monthly for the present, and eventually a weekly service is expected to be maintained. A general cargo boat will also be put on the line in order to handle the freight contracts already in view. It is believed that as soon as conditions improve in Mexico extensive shipments of lumber and railroad ties will be required.

Wants Industries.

William M. Adams of Clanton, Ala., writing to the MANUFACTURERS RECORD with a view to interesting some one in the establishment of such enterprises as a cotton-oil mill and a hardwood factory in his community, says:

"I believe that the time is ripe for placing such small enterprises at this point. We will very soon have here the necessary power furnished by improvements of a hydro-electric character at Lock 12 on the Coosa River."

An Interurban Railroad Power Plant.

[Special Correspondence
Louisville, Ky., March 1.

The Louisville & Interurban Railroad Co. of Louisville, Ky., expanding its city lines with the rapid growth of the city to which its operations were at first confined, and constructing suburban and interurban lines to meet the increasing demands of the surrounding territory, finally reached a point, something like a year ago, when it could see in the immediate future a daily requirement of power which its ex-

Manufacturers Record.]

and four additional turbines of the same type and power will be placed.

It will thus be seen that while the work now under way is far from insignificant, as will be further developed by the facts and figures regarding it, the final plans contemplate a plant which may well be described as imposing. While the buildings were planned by Architects D. X. Murphy & Bro. of Louisville, the mechanical and electrical equipment was de-

the work, from the engineering standpoint, was the arrangement for the water supply. The tunnels and conduits for the water system are all of concrete, and this and the other concrete work on the plant, consisting of the massive foundations for the machinery and for the building proper, was handled by the Henry Bickel Company of Louisville. Something like 15,000 cubic yards of concrete were used in this part of the work, a good deal of which had to be placed under conditions somewhat out of the ordinary, and about 750,000 pounds of twisted steel bars were used in reinforcing, in sizes running from one-half inch to one and one-quarter inches.

The water system was the first part of the work handled after the beginning of

receiving end of the conduits was true tunnel work, as a matter of necessity under the conditions, the remaining 205 feet to the intake point on the basin being open trench construction, which also ran 15 feet into solid rock.

There are eight intake openings from the canal, four to each of the twin conduits, extending 85 feet along the canal wall, each opening being 4 feet 8 inches wide by 8 feet high, with the top four feet below the normal water level. The intake was necessarily constructed behind a cofferdam, being lower than low-water mark on the canal. Cast-iron rack screens, with two-inch openings, prevent the entrance of driftwood into the conduits; and at a point 110 feet from the intake a screen-



EXCAVATION FOR TURBINE-ROOM.

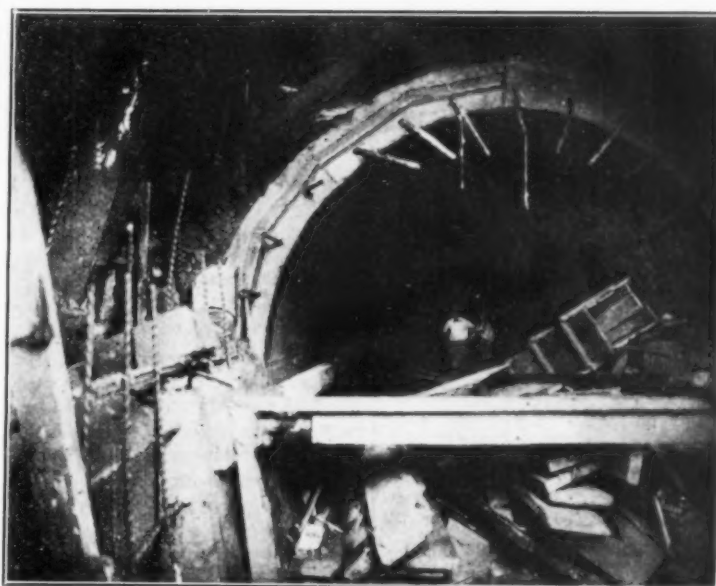


EXCAVATION FOR ENTRANCE OF INTAKE CONDUITS.

isting plants would be unable to supply, and Superintendent of Motive Power F. H. Miller was therefore called upon to meet the situation before it became an emergency. In due time one of the finest power plants in the country for a city of this size will be the result, nearly a year's work having been done already.

The company's power requirements can be guessed at by a consideration of the fact that it operates in and around the city of Louisville electric lines with a total length of single track reaching 261.459 miles. The city proper, which is served by a splendid system, has something more than 140 miles, the remainder of the company's lines extending as far as 30 miles and bringing a number of towns in adjoining counties into direct touch with the Kentucky metropolis. As indicated, additional power for this great and growing system of lines was becoming an immediate necessity, and to meet this demand the plant now under construction was designed.

That part of the plant now under construction, while complete in itself, is yet small as compared with the ultimate installation planned, as it is intended for the main plant of the company in the future. The initial installation of boilers consists of eight, each of 500 horse-power, furnished by the Babcock & Wilcox Company of Bayonne, N. J., in a building 100x180 feet. The ultimate installation contemplated will be in a building measuring 180x320 feet, and will consist of 48 500-horse-power boilers. The present turbine-room is 80x175 feet, and will house two steam turbines, each of 6000 kilowatts (9000 horse-power) capacity normal, or 13,500 horse-power maximum, although there is room in the building for double this turbine capacity. Later the building will be increased in size to 80x320 feet.



INTERIOR VIEW OF OUTLET TUNNEL.

signed and specified by F. H. Miller, head of the company's department of motive power.

Ground was broken for the beginning of the work May 1, 1912, and progress since that time has been fairly steady, although it is estimated that the better part of another year will be required to complete the work. The site selected, in view of the usual necessity of such a plant for a large and dependable water supply, was at 20th and High streets, near the Government canal, which carries the Ohio River boats around the falls, giving an available water supply to draw upon which will fail when the great Ohio runs dry, and not before.

Possibly the most interesting part of

the excavation for the foundations of the building. The mouth of the intake tunnel was located on the canal, as stated, the particular point being the turning basin, which is double the usual width of the canal. The banks of the canal are of cut stone, and the waters are, of course, quiet and without appreciable current at all times, giving ideal working conditions.

For the first 150 feet of the intake tunnel, from the point where it enters the power-house, 62 feet below grade, a channel 11x18 feet was blasted through solid rock to accommodate the twin-box conduits, each measuring 7x8 feet. The depth indicated was necessary in order to secure a gravity flow, a .22 per cent. grade being specified. All of this 150 feet at the

house is built, housing machinery for the lifting of additional screening facilities, consisting of double wire screens, with a seven-eighths mesh on the river side and a one-half-inch mesh on the inside. A three-ton electric crane, operated by a six-horse-power motor, will do the hoisting of the screens for the frequent clearings which will be necessary, and for repairing.

The whole intake system is constructed in duplicate, in order to permit one unit to be entirely closed for cleaning or for any other purpose, without interruption to the water supply for the plant. Only one of the conduits will be used at a time, therefore, the other being kept in reserve for this purpose. Accidents disabling either conduit are not likely; but by reason of the large amount of silt carried by the waters of the Ohio, which is deposited is a heavy coating upon the walls of any conduit through which they are carried before filtering, frequent cleaning of the conduits will be necessary; hence the twin construction. Each unit has a capacity of 160,000 gallons a minute or thereabouts, which will be ample for the plant's requirements.

Reinforced concrete construction of sufficient strength to withstand the enormous pressure of the water when the river is high, which is not of infrequent occurrence, prevails in the conduits. The outside walls are 10 inches thick, reinforced with one-half-inch bars, 12 inches apart, the fact that the surrounding material is of solid rock offering a natural support which gives a considerable additional factor of strength. The dividing wall between the two conduits is 12 inches thick, reinforced by seven-eighths-inch rods on eight-inch centers; the bottom is 10 inches, with one-half-inch rods on 12-inch centers, and the top 12 inches thick, with like reinforcing. Two-way reinforcing is

the rule in the conduits. All of the concrete was chuted to position except that in the 150 feet of tunnel mentioned, where it was placed in wheelbarrows in eight-foot sections. Wooden forms were used.

Cast-iron manholes of the solid flange type, fitted with gaskets so as to be absolutely water-tight, within the building, and concrete manholes built to grade outside the building, are provided at proper intervals for frequent cleaning. The water, after performing its office in the condensation of the steam from the turbines, is discharged into a parallel duct in the building, and is thence carried back to the canal through an 800-foot outlet tunnel. The water is elevated in the building in the process of condensation, and the height of the point where the outlet tunnel begins is such that the same fall is given as to the intake conduits, about .22 per cent.

The outlet is a single conduit, of monolithic concrete construction, and of the horseshoe type. The excavation was all straight tunnel work by the post-and-cap method. The material, a soft clay, was particularly difficult to work in, and during the course of the construction of the tunnel three headings were lost. The concrete was necessarily placed by the use of wheelbarrows, being chuted through working shafts 100 feet apart, through which manholes were constructed on the completion of the work, and thence wheeled to the point of placing. The mixture, which was 1, 2 and 4 in the tunnel and conduits, both intake and outlet, one-inch river gravel being used, was here placed in 16-foot sections. Owing to the rounded shape of the tunnel, galvanized-iron forms, shaped on wooden ribs, were used, these being considerably more convenient in the placing than wood forms would have been.

This tunnel is 9 feet in height, and the concrete is 10 inches thick at top and bottom, and 18 inches at the spring line of the horseshoe. Two-way reinforcing was used, as in the intake conduits, the vertical bars being one-half inch on 10-inch centers, and the horizontal five-eighths inch on 12-inch centers. The water, passing through the tunnel, is delivered into the canal through eight openings. The end of the tunnel runs parallel with the canal, and additional openings can thus be installed as required by the expansion of the plant. The outlet is about 600 feet west of the intake point.

In the turbine-room a 50-ton Whiting crane is to be installed for use in placing the machinery, and the 30-inch steel columns supporting this crane rest upon 4x4½-foot concrete caissons, sunk to bed-rock, the open well method being used in their construction. The numerous lighter columns throughout the building, which will support the structure itself, rest upon Raymond concrete piles, also sunk to rock. Although the present building is not a tall one, 110 tons of structural steel will be required for the columns and framework, and all steel below the first floor is to be fireproofed by a coating of concrete.

Concrete is, in fact, the feature of the plant. The foundations are, as stated, of concrete, ranging in size from those on the comparatively light walls of the building proper to the four-foot thicknesses which will support the turbines. There are to be two brick stacks, each of which will rest upon four solid concrete piers. One of these stacks, 13x255 feet, has already been erected, the foundations for this consisting of piers 9 feet 3 inches square, in a space 32x36 feet, carried down 36 feet from grade to rock, containing in all about a thousand cubic yards of concrete. The second and larger stack, which is to serve the additional boilers ultimately to be installed, will be 17x255 feet, and while

the foundations have been put in with the rest of the concrete work, the stack itself will not be built until required. Its foundation consists of four 13x15½ piers 36 feet deep, in a space 34x41 feet, and contains about 1200 yards of material.

The mixing for the job was handled by four machines, two Smiths, one Ranson and one Chicago, of which two mixed a one-third-yard batch and the others a one-half-yard batch. The mixture for the conduits has been described, and that for the foundation work was 1-2½-5, river gravel being used here as elsewhere. This material is obtained in the vicinity of Louisville, and is used by contractors and engineers in concrete construction almost to the exclusion of crushed rock. The latter material, by the way, would have been extremely convenient for use on this job, owing to the fact that it was being excavated all the time. The contractor set up a crusher which reduced it to small sizes, and sold it to the city for paving construction. J. B. Speed & Co. of Louisville furnished the 20,000 barrels of cement required on the job, and the structural steel was supplied by the Louisville Bridge and Iron Works, another local concern.

Other equipment and material is furnished as follows: Water screens and miscellaneous iron work, Sneed Architectural Iron Works, Louisville; turbines, generators and switchboards, Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa.; condenser equipment, Henry R. Worthington, Harrison, N. J.; stack, H. R. Heinicke, New York; cranes, Whiting Foundry Equipment Co., Harvey, Ill.

A somewhat unique feature in connection with the intake conduits was designed by Mr. F. H. Miller, and consists of a double line of 30-inch cast-iron pipe, one for each conduit, which run back from the end of the discharge or hot-water conduit on the top, and along the course of the intake conduits to the point of intake on the canal, where in cold weather they will discharge a continuous stream of hot water, the idea being to prevent the freezing of the quiet water at the point of intake, or the accumulation of ice, either of which might give some trouble, especially at extreme low stages of the river, when the mouth of the intake might be exposed.

The walls of the buildings will be of red brick, and the roof of concrete, tile and Barret specification roofing. Fenestra windows will be installed, giving ample daylight.

G. D. CRAIN, JR.

Men of Hampden-Sidney.

The January Bulletin of Hampden-Sidney College is a neat pamphlet of 56 pages, containing the "Discourse on the Lives and Characters of the Early Presidents and Trustees of Hampden-Sidney College," delivered at the centenary of the founding of the college, June 14, 1876, by Hugh Blair Grigsby, LL.D.

The introductory portion of the publication contains the roll of charter trustees; the calendar showing the executive officers of the college for the first 100 years of its existence, and a sketch of the life of Hugh Blair Grigsby, compiled by Dr. A. J. Morrison—under whose editorial supervision this number of the Bulletin was published—mainly from the sketch of Mr. Grigsby, by Mr. R. A. Brock in Vol. I, Virginia Convention of 1788. This sketch incorporates very appreciative remarks by Hon. Robert C. Winthrop before the Massachusetts Historical Society on the occasion of Mr. Grigsby's death. The body of the discourse covers the men of the charter and the presidents through the administration of William Maxwell.

ON AMERICAN COAL PRODUCTION.

Observations of D. A. Thomas, the South Wales Magnate.

(New York Journal of Commerce.)

D. A. Thomas, the magnate of the South Wales coal field, on his return to England after his recent tour in the United States, when interviewed by the *Liverpool Journal of Commerce*, said his projects in the United States coal fields were only postponed. He stated that he hoped soon to return to the United States and to take up business on a large scale. It is believed in British coal trade circles that the significance of such an arrangement as Mr. Thomas is likely to make may lead to a merging of interests that would give him through South Wales and the United States the strongest individual hand in the whole world's coal trade.

Speaking of his general observations which he was able to make on the coal trade in the United States, Mr. Thomas said:

"As to the prospects before the American coal trade there can be no mistake that these are very great, and frankly I hope to take some part in it in the near future. The trade there is going ahead with amazing rapidity. Fifteen years ago the production of coal in this country was greater than that of America. Today their output exceeds ours by 60 per cent., that is, half a million short tons per annum, and is increasing by leaps and bounds."

Asked whether, in his opinion, there was likely to be an immediate effect on the English export trade, especially when the Panama Canal opens, Mr. Thomas said he did not think there was any immediate danger so far as the Mediterranean coal trade is concerned. The question of outward and homeward freights played a large part in favor of English exports as against Americans. At the same time the latter were sending substantial increases to the Mediterranean.

"There can be no doubt," remarked Mr. Thomas, "that the American experts are determined to secure much more trade in the world's neutral markets, but I do not for the time being feel any anxiety in regard to their competition in that direction. The export of coal from the United States, other than that to Canada and to the West Indies, is almost an insignificant fraction of the production."

In regard to the probable effect which the Panama Canal is likely to have on the Far East trade, Mr. Thomas said it was impossible for anyone to embark on dogmatic forecasts, but as to the effect on the west coast of South America he said: "There are great possibilities which all require watching; not only is it so much nearer than we are to the United States coal fields, but they have good return freights in nitrates, while I hear also that Mr. Schwab has concluded a big deal in South American iron ore. There is now keen competition between English and Australian coals, while a Chilean native coal is making strong progress."

The conditions of coal production and dispatch were closely studied by Mr. Thomas in the United States. Everything was done for dispatch. For instance, at Newport News the conditions were splendid. There he found deep water right up to the dumping piers, with a rise and fall of tide not more than three feet, whereas at Penarth they sometimes had a rise and fall to the extent of 40 feet.

With regard to transportation Mr. Thomas said:

"The Americans have a very great advantage over us in their natural conditions, but, on the other hand, we have the

pull in transport. Whereas some of the coal fields we visited are from 300 to 400 miles away from the port, the railway rate charged is about 6s. With us the average distance is about 20 miles, and the average railway rate only about a shilling. Then, again, the conditions of our foreign trade at the present time give us, and will so far as one can see for some time to come, cheaper freights to our foreign markets than the Americans can hope to get."

With regard to the cheaper production of coals, it impressed Mr. Thomas that this was due to the natural advantages connected with the mines. "Owing to the favorable nature of the conditions, operators in the United States are able to put coal on a truck at the mines at from 3s. 4d. to 4s. 2d. per ton. In the gas, domestic and steam coal districts millions of tons of coal are produced at 2s. 6d. a ton, covering all charges to the colliery. I proceeded for hundreds of yards underground without coming across a single prop, and the cost of production for what they call the run of the mine is not more than a fourth to one-third of the cost of producing a ton of Welsh steam coal."

In regard to labor, this, Mr. Thomas found, was not cheaper than English, and a striking fact was that, according to Government reports, the highest paid men were non-unionists.

On the other hand, Mr. Thomas pointed out that the mines here are immeasurably safer to work. He said the fact that there is no gas enables the miners to work with naked lights, while the roofs are so high that collapses are practically unknown. Yet the astonishing fact exists that the loss of life in American mines is far in excess of that in the United Kingdom.

"It can only be accounted for," explained Mr. Thomas, "by the general recklessness of life that one observes prevailing throughout this great and wonderful country."

Mr. D. A. Thomas is known as the founder and directing head of the Cambrian Coal Combine. The organization of the combine is a huge and far-reaching one, for not only is it associated with coal production, but it embraces in its operation the control of practically all the services involved in the distribution of coal from the pit mouth to the consumer. It manages its own depots and agencies in various parts of the world, controls steamships of an aggregate tonnage capacity of about 70,000 tons, is directly associated with some of the largest shipowning firms in Europe, is the largest individual pit-wood importing and selling connection in South Wales, and is very largely interested in patent fuel works not only in South Wales, but also in France. The volume of coal exports handled by the different firms under the combine is estimated to be about from 5,000,000 to 6,000,000 tons per annum, or approximately about one-sixth of the total coal trade foreign-wise of South Wales.

It was in 1907 that he began to widen out his commercial interests, and since that date he has welded the Cambrian, Glamorgan, Naval and Britannic Merthyr into one organic whole as a coal-producing concern, allied to it coal selling, coal shipping, coke and patent fuel producing and exporting, pitwood, shipowning and financial firms, and has become associated either as chairman, managing director or director of no fewer than 21 undertakings.

He was born in Wales in 1856, and educated at Cains College, Cambridge, taking mathematical honors.

IMPROVEMENTS COSTING \$400,000

Extensive Betterments for Electric Property at Tampa.

The Tampa Electric Co. of Tampa, Fla., wires the MANUFACTURERS RECORD confirming details of plans for extensive betterments to the company's property, approximately \$400,000 to be invested, and the Stone & Webster Engineering Corporation of Boston being the contractor and engineer. These improvements may be briefly summarized as follows:

New office building, extension of lines and installation of miscellaneous equipment to increase the present station by 125 per cent., or more than double the capacity of the present plant. The company will install in the West Jackson street plant a new Westinghouse steam turbine and generator of 4000 kilowatts capacity, with the necessary boilers, condensers, auxiliary pumps and electric switchboard. Some of this apparatus will be continued in the present building, but the old building will be considerably extended. The station now consists of four units—1500-kilowatt steam turbine, 1000-kilowatt steam turbine, 600-kilowatt reciprocating engine-driven unit, 250-kilowatt reciprocating engine. The added unit will be greater than all these put together, and will be contained in a single unit.

The new office building will be erected at Tampa and Cass streets, on the site of the present substation, which will be abandoned and the present building removed. The structure will face 60 feet on Tampa street and 55 feet on Cass street. It will be two stories high, and cost approximately \$40,000. Practically the entire first floor will be designed for the use and convenience of the public, and also be utilized as a display section for the electric lighting and heating departments. The second floor will be devoted to the executive offices and accounting departments. The company recently increased its capitalization from \$1,870,000 to \$2,244,000 to improve plant and consolidated with the Tampa & Sulphur Springs Traction Co.

HAMPTON ROADS COAL EXPORTS.

Norfolk and Newport News Now the Starting Point for 4,000,000 Tons.

[The Coal Trade Journal.]

The increased shipment of American coal to foreign ports has been a feature of the past year's business, and in the record thereof the ports on Hampton Roads are conspicuous for gain in tonnage handled. Official records now at hand show that no less than 4,000,000 tons were sent abroad or supplied to foreign steamers at Norfolk and Newport News.

Details of the distribution appear below, and while, of course, these figures are still quite small as compared with the foreign trade at Cardiff, the comparison with the figures of five or ten years ago is striking. In 1907 the exports at Norfolk aggregated only 690,177 tons and bunker tonnage 278,110, a total of 977,277, while at Newport News the figures were 692,682 tons export, 219,875 tons bunker, making the total for both ports 1,889,834 tons.

Further back, in 1904, the showing was as follows: Norfolk, bunker, 253,233 tons; export, 200,000 tons; Newport News, bunker, 125,029 tons; export, some. The bunker business, it will be noted, was greater than the exports, particularly at Newport News, where the indefinite word "some" probably had reference to a very small amount, and it is safe to say the total business of the two ports in the way of foreign-bound coal did not aggregate 600,000 tons. Surely the growth in the intervening time indicates that, despite a late start and relatively unimportant ad-

ditions year by year compared with our total output, the foreign coal trade of the United States is gradually achieving a robust condition, with excellent prospects for the future.

Hampton Roads has been a notable harbor for centuries, and it is evident that, combining modern railroad facilities, with ample expanse of deep water noted by Capt. John Smith over 300 years ago, a remarkable coal-handling center has developed.

Coal exported at the port of Norfolk, Va., for the year ending December 31, 1912:

Countries.	Tons.
Panama	374,563
Brazil	190,726
Italy	150,827
French Africa	84,780
Barbados	55,325
Jamaica	53,224
Bermuda	39,650
Other British West Indies	30,914
Danish West Indies	73,879
Argentina	53,000
Cuba	66,759
Chile	60,883
Austria	33,007
Uruguay	32,950
Mexico	28,716
Portuguese Africa	24,708
Dutch West Indies	22,825
Egypt	22,690
Canada	17,700
British Guiana	15,500
Madeira	11,687
Gibraltar	11,218
Philippine Islands	10,623
Japan	6,950
Netherlands	6,605
Haiti	5,000
Portuguese Africa	3,524
Dutch Guiana	3,394
German Africa	2,150
Venezuela	1,493
Total	1,474,406
Bunker	621,120

Coal exported at the port of Newport News, Va., for the year ending December 31, 1912:

Countries.	Tons.
Argentina	19,718
Azores and Madeira Islands	5,215
Barbados	14,531
Jamaica	3,495
Trinidad and Tobago	54,532
Other British West Indies	43,944
Brazil	70,315
Canary Islands	18,705
Cuba	371,048
Danish West Indies	54,623
Dutch West Indies	26,639
Egypt	16,171
French Africa	42,448
France	14,652
Haiti	1,878
Honduras	1,111
Italy	66,491
Mexico	25,759
Panama	90,000
Portuguese Africa	4,676
Spain	4,028
Uruguay	11,977
Venezuela	1,544
Total foreign	955,062

Porto Rico	2,382
California	11,518
Bunker Coal.	
Domestic trade	111,171
Foreign trade	385,235
Total bunker	496,396

RECAPITULATION.	
Foreign Trade	955,062
Porto Rico	2,382
California	11,518
Total	968,962

Bunker Coal.	
Total	496,396
Grand total	1,465,358

As showing the fluctuations of business by months at this great center, we give below the figures throughout the year for the three piers, adding together Lambert Point and Sewalls Point to show the Norfolk business, and adding the latter and the Newport News tonnage to give the total for Hampton Roads. These specific details, based on official authority, will, we think, be found a very useful matter of reference.

Exports of coal from Hampton Roads by months:

Month.	Lambert Pt.	Sewalls Pt.	Norfolk.	Newport News.	Total.
January	92,265	14,569	106,834	71,224	178,658
February	106,388	19,001	125,389	87,692	213,081
March	119,586	56,472	176,058	99,741	275,799
April	191,719	29,094	220,813	179,577	400,390
May	108,596	31,357	139,953	102,506	242,223
June	100,251	15,683	115,934	73,369	189,311
July	120,292	15,596	135,888	75,658	211,516
August	65,284	20,421	85,705	71,955	156,765
September	66,858	21,983	87,841	54,355	142,221
October	82,544	49,123	132,667	55,538	178,265
November	60,381	10,895	71,276	42,563	113,839
December	63,573	36,749	100,322	57,846	158,168
Total	1,177,527	310,591	1,488,518	971,144	2,459,662

There is a slight difference apparent in the total of monthly shipments as compared with total of exports by countries, due possibly to some duplication of tonnage. This, however, is not large enough to affect the result in any case.

Of course, the great coastwise shipments, are entirely unconsidered in this review of foreign business.

The Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., March 1.

Current asking prices for all grades of pig-iron are no firmer than at the time of last report, and the volume of business transacted does not increase. Within the week more or less inquiry has been received for basic, and it is probable that within the next 10 days a considerable tonnage of that grade will be engaged; but as the local production of basic is being consumed at local operations, producers are most interested in foundry grades, of which stock accumulations continue to increase. The aggregate of stock accumulations as of this date will hardly be known for another 10 days owing to the delay in compiling reports. The movement from furnace plants was fair all through the month of February, representing a larger daily rate than was shown for the month of January; but the February production, notwithstanding the fact of a short month, is considerably in excess of that for the month previous. It is noted that practically every furnace plant now in operation has been overhauled and the capacity increased within the past two years, and that the 26 stacks in blast during February represented an average daily output of some 400 tons each. This probably means a higher daily rate of production than has ever been obtained before from the available capacity, but the percentage of basic being produced is larger than heretofore. Of the 26 stacks now in blast 16 are producing foundry grades, eight are producing basic, with two stacks on charcoal iron. The foundry iron production is well taken care of for some two months in advance by unfilled orders; the basic production is required for local steel plants, and the stacks on charcoal have been provided with orders for practically the remainder of the year. With these conditions it seems quite likely that prices can be maintained at figures around those now ruling; however, it remains to be seen just how well the foundry trade is provided by the orders that remain unfilled. The lack of interest in advanced requirements on the part of the largest consumers is very decided, and, as is shown by the sales being made, the smaller concerns, or the trade that usually buys on an open market, is taking but little tonnage.

The aggregate of all sales made in the week is even smaller than that of the week previous, with price considerations just as much at variance. The tonnage being offered for resale has not increased, and there is more or less uncertainty as to just what position is being taken by the merchant interests in this regard. Small quantities from warrant yards have sold at figures as low as \$13 per ton for No. 2 foundry, and \$13.25 per ton for the same grade is frequently reported. The \$13

price would hardly be accepted by any of the furnace companies, but it is now understood that some tonnage has been entered by one of the larger concerns at figures representing a basis of \$13.50 per ton at Birmingham. A lot of 100 tons of No. 2 foundry was reported sold in the week at \$14 per ton, but in this the analysis content was no doubt a feature. The lower grades are being held quite firmly at a differential of only 25 cents per ton on the No. 2 foundry price, but there is, in fact, no market for either just at this particular time. The quotations as last revised are still considered a fair representative of the several asking prices, but the market is undoubtedly weak and without prospect for improvement in the immediate future. The schedule for the several grades, to be delivered in the remainder of the first half, is as follows per gross ton f. o. b. cars Birmingham furnaces, viz.: No. 1 foundry, \$14 to \$14.50; No. 2 foundry, \$13.25 to \$13.75; No. 3 foundry, \$13 to \$13.50; No. 4 foundry, \$12.75 to \$13; gray forge, \$12.50 to \$12.75; mottled, \$12.50 to \$12.75.

The condition of the pig-iron market is reflected more perceptibly in the condition of the market for old material, and prices have suffered. Within the week a fair movement of steel scrap, relaying rails and car wheels is reported, but for the former prices received indicate material shading. Stock accumulations are not being increased in any case, and an effort is being made by dealers to effect delivery of tonnage due on contracts wherever practicable. There is practically no demand for light cast and country grades, with wrought grades bringing nominal prices. Dealers' asking prices, which are no doubt subject to shading with the several local conditions, are about as follows per gross ton f. o. b. cars local yards, viz.:

Old iron rails (light), \$15.50 to \$16.
Old steel axes (light), \$15.50 to \$16.
Old iron rails, \$15.50 to \$16.
No. 1 railroad wrought, \$13.50 to \$14.
No. 2 railroad wrought, \$11 to \$11.50.
No. 1 country, \$9.50 to \$10.
No. 2 country, \$8.50 to \$9.
No. 1 machinery, \$11.50 to \$12.
No. 1 steel, \$11.50 to \$12.
Tram car wheels, \$11 to \$11.50.
Standard car wheels, \$12.50 to \$13.

The finished material mills are being pressed for delivery of tonnage due on old contracts and for bars and shapes, and it is quite likely that a further advance in prices will soon become effective. Specifications for wire fencing, nails and other wire products are being received in a very satisfactory volume, with prices being maintained in every case. No report is made of material additions to order-book requirements of steel shapes and standard rails, but it is understood that the capacity for both grades at Ensley, Bessemer and at Alabama City is taken care of for practically the entire first half. Quotations on light steel rails are being maintained, with a fair volume of new business in sight.

The city of El Paso, Tex., is understood to be in the market for some 1000 tons of standard water pipe, and bids are being asked on 500 tons for a Southern railroad extension. The city of Waco, Tex., has recently placed a contract for 3000 tons of water pipe, but specifications have not been submitted.

Local plants continue to operate and prices are being adhered to, notwithstanding the accumulation of stock. We quote class "B," or water pipe, at \$24.50 per net ton f. o. b. cars here for 4-inch size, with 6-inch and larger sizes quotable at \$22.50 per net ton. Class "A," or gas pipe, is quotable at an advance of \$1 per

ton over the figures asked for class "B" pipe, and special fittings are quotable at \$15 to \$50 per net ton, depending upon the size and nature of the requirement. These prices are firm for small orders, but are no doubt subject to shading for municipal contracts.

The sale of 1200 tons of foundry coke for early delivery in the State of California is just reported at figures in line with asking prices as last revised. Furnace coke is still very strong, the supply unequal to the local requirement.

Steam and domestic coal continue to move in satisfactory volume, but operators are more solicitous of orders for the summer months. The proposal of the Government to establish a coaling station on the Isthmus of Panama is being watched with considerable interest by local concerns, especially in view of the plans now under way to barge coal to New Orleans via the Warrior River. The developing of foreign territory through Mobile, Pensacola and New Orleans has been the purpose of leading commercial operators for many years, and with a station established on the Isthmus and the rate of transportation to deep water materially reduced, as is proposed by the Warrior River undertaking, it seems that the problem will have been solved. The domestic market becomes easier with the approach of summer months, and the changing of screens will become necessary at many operations unless dealers are induced to stock more liberally than at the present rate.

The plant of the American Radiator Co. at North Birmingham has been completed, and the installation of machinery will be commenced at an early date.

It is now understood that the Oxmoor furnace of the Tennessee Coal, Iron & Railroad Co. will not be blown in until the latter part of March, owing to the delay in completing repairs.

The new furnace of the Woodward Iron Co. at Woodward, Ala., will not be blown in until the completion of a battery of Koppers by-product ovens now under construction.

A \$2,000,000 Oil Refinery.

The Waters-Pierce Oil Co. of St. Louis is reported to have chosen Sand Springs as the site for its proposed big oil refinery recently announced. It is stated that the site is a 320-acre tract adjoining Sand Springs, bordering on the Arkansas River, where approximately \$2,000,000 will be invested for the necessary construction and machinery. The buildings will cover 160 acres, and the other 160 acres will be covered with tanks and other refinery accessories. About a year will be required to complete the plant, and 800 men will be required for the construction and installation of the equipment, laying pipe lines, building tankage, etc. The completed plant will employ 300 men, and, besides refining oil, it will manufacture various oil-refinery by-products. Its oil capacity will be 10,000 barrels daily.

Opportunity for a Newspaper Man.

The owners of a weekly newspaper in one of the most attractive small towns of the South, growing rapidly, want an editor who can manage the property and make the most of the situation. If they can find the right man they are willing to give him the entire management, allow him a fair salary and let him use the profits in paying back the amount of money they have advanced, and when this has been done to give him a half-interest in the whole property. Letters addressed to X Y Z, care MANUFACTURERS RECORD, will be forwarded.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

Bonds Voted.

Bay City, Tex.—Matagorda county votes \$300,000 bonds to construct roads.

Carrizo Springs, Tex.—City will issue \$6000 bonds for street improvements.

Lockhart, Tex.—Caldwell County Road District No. 4 voted \$40,000 bonds for road construction.

Pleasanton, Tex.—Atosca County Precinct No. 3 voted \$25,000 bonds for road construction.

Bonds to Be Voted.

Albany, Ky.—Clinton county votes March 29 on \$50,000 bonds for road construction.

Athens, Tex.—Henderson County Precinct No. 1 votes April 5 on \$100,000 of bonds to improve roads.

Donaldsonville, La.—Ascension parish votes March 25 on \$50,000 bonds for road construction.

Greeneville, Tenn.—Greene county votes March 29 on bonds for road improvements.

Guntersville, Ala.—Marshall county votes March 31 on \$130,000 bonds for road construction.

Oneonta, Ala.—Blount county votes April 3 on \$150,000 bonds for road construction.

Contracts Awarded.

Baltimore, Md.—City awarded contracts for street paving with vitrified block, sheet asphalt, bituminous concrete, granite block, etc., aggregating \$111,000.

Many, La.—State awarded \$24,900 contract to construct 11-mile road.

Pittsburg, Tex.—Camp county awarded contract to construct 35 miles of road.

Contracts to Be Awarded.

Johnson City, Tenn.—City will award contracts for three miles of paving.

Louisville, Ky.—City opens bids March 21 for constructing 3000 square yards of wood block paving; also on March 10 for constructing 2575 square yards of wood block paving.

Marshall, Tex.—City will pave eight blocks at cost of \$125,000.

Richmond, Va.—City receives bids until March 14 to construct 70,000 square yards of smooth paving, 65,000 yards of granite spall paving, 16,000 linear feet of granite curbing and 10,000 feet of granolithic curb and gutter.

Selmer, Tenn.—City receives bids until March 15 to construct 12,000 square feet of concrete sidewalks 10 feet wide.

St. Augustine, Fla.—St. John county plans 7½ miles of brick paving and additional paving for which material has not been determined.

St. Louis, Mo.—City will award contracts on March 18 for brick, asphalt and bitulithic pavement to cost about \$181,000, and for alley improvements to cost about \$5300.

Tallahassee, Fla.—City receives bids until March 13 to construct 5400 linear feet concrete curbing.

To aid in the work for attracting desirable settlers to the territory served by the Southern Railway, the Mobile & Ohio Railroad and affiliated lines, and for locating industries in this territory, an agency of the land and industrial department has been established at Harrisburg, Pa., in charge of W. E. Price.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

CAPE LOOKOUT TERMINAL.

Norfolk Southern Plans Extension from Beaufort, Construction of Docks, Etc.

Application has been made to the North Carolina Legislature to charter the Beaufort Terminal Railroad Co. to build a line about 12 miles long from Beaufort, N. C., to Cape Lookout, and to establish at the Cape ocean terminals, including docks, piers, etc.; capital \$5,000,000.

The Norfolk Southern Railroad Co. is apparently back of the application, as the incorporators are E. C. Duncan of Raleigh, N. C., who is a member of its board of directors, the others being Col. W. B. Rodman, general solicitor, and Morris S. Hawkins, assistant to the president and secretary of the Norfolk Southern, both at Norfolk, Va.

Senator Ward introduced the bill. The availability of Cape Lookout as a seacoast terminal for a railroad has long been recognized. It is south of Cape Hatteras, and the inside shore toward Onslow Bay is sheltered from the ocean. With proper dredging a channel could also be provided for large vessels to reach Beaufort, which is now the most southern point on the Norfolk Southern. The company has not made any announcement of its plans other than the general statement embodied in the bill for incorporation.

PENNSYLVANIA RAILROAD.

1912 Was the Largest Year in the Company's History—Statement Shows Great Progress.

The income statement of the Pennsylvania Railroad Co., presented in its sixty-sixth annual report, just issued, shows that during the year 1912 the rail operating revenues for its lines directly operated east of Pittsburgh and Erie, Pa., were \$174,607,598, or an increase of \$17,120,185 as compared with 1911; rail operating expenses were \$126,637,944, increase \$13,409,551; net revenue from rail operations \$47,969,653, increase \$3,710,633; net railway operating revenue after deduction for auxiliary operations \$46,821,068, increase \$4,087,850; railway operating income after deducting tax accruals \$39,693,133, increase \$3,755,201; total income (which includes \$13,192,714 from dividends on stocks owned) \$58,982,866, increase \$3,958,956; net income after deductions for interest, leases, etc., \$42,153,964, increase \$4,019,399. Of this latter there was distributed in cash dividends \$27,198,918, over \$2,900,000 were set aside for the principal of equipment trust obligations, over \$1,138,000 constituted appropriations to sinking and other reserve funds, \$2,365,479 were spent for betterments, etc., and \$6,000,000 were held in reserve. The balance transferred to the credit of profit and loss was \$1,661,103. Total amount to credit of profit and loss \$28,534,975.

Under the head of "general remarks," accompanying the income statement, it is observed that the total rail operating revenues were the largest in the history of the company, and displayed an increase of nearly 11 per cent. over those for 1911. The rail operating expenses were also the largest, having increased nearly 12 per cent., although the severe winter early in 1912 contributed to the increased cost of operating, which was further heightened by higher wages, the extra train crew law, increased cost of fuel, etc.

Concerning the threatened strikes of

engineers and firemen, it is remarked: "The experience arising from these larger wage controversies places a serious responsibility upon those whose duty it is to enact proper legislation governing the relations between employer and employee, to consider whether the Erdman Act should not be amended to increase the number of arbitrators and thereby constitute a board of sufficient size to properly represent the public as well as the parties to the controversy, and to direct the necessary far-reaching investigations and fully share the responsibility of an impartial determination of the equitable and economic questions arising from such disputes. It will also be found necessary to provide a longer time than 30 days specified in the act for the consideration of the subject and the rendering of a decision."

As to the \$6,000,000 appropriated to the reserve for additions and betterments, it is stated that the company has in contemplation many important and necessary improvements, a large portion of which should not be charged to capital account, and for which the reserve will be utilized.

Reference is made to much of the betterment work, and it is stated that the reconstruction of the bridges over the Gunpowder and the Bush rivers in Maryland will be finished this year, and reconstruction of the bridges over Stemmers Run, Back River and Gwynns Falls will be undertaken. Automatic block signals have been installed on the Maryland division between Washington and Baltimore, Principio and Iron Hill, and also between Ruthby and Wilmington, altogether about 60 miles, the work being complete between the points named. Similar work will be continued next year. The Mt. Vernon yards enlargement at Baltimore was finished. An enlargement of freight facilities at Highlandtown, Md., is in progress.

The income statement of the Pennsylvania company shows for 1912: Rail operations revenue \$62,950,424, increase \$9,277,123; net revenue (rail operations) \$18,307,013, increase \$1,592,943; railway operating income after considering auxiliary operations and tax accruals \$15,536,788, increase \$1,287,603.

The income statement of the Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co. shows: Rail operations revenues \$43,604,082, increase \$5,054,148; net revenue rail operations \$11,921,119, increase \$872,580; railway operating income after considering auxiliary operations and tax accruals 10,307,348, increase \$839,539.

The income statement of the Vandalia Railroad Co. shows: Rail operating revenues \$10,748,709, increase \$778,382; net revenue rail operations \$2,579,034, increase \$408,213; railway operating income after considering auxiliary operations and tax accruals \$2,221,040, increase \$382,676.

The Pennsylvania Railroad Co. has just sent dividend checks amounting to \$6,807,169 to its 75,492 stockholders, and it is officially stated that this is the largest number of shareholders to whom it has ever paid a dividend. Nearly one-half of the stockholders are women. The dividend is paid quarterly.

\$27,000,000 OF NEW WORK.

Baltimore & Ohio Railroad Contemplates Liberal Expenditures Out of Bond Issue.

In connection with its application to the Maryland Public Service Commission for authority to issue \$63,250,000 of 4½ per cent. convertible gold bonds the Baltimore & Ohio Railroad Co. revealed that about \$27,000,000 of the proceeds of the securities may be devoted to extensive improvements, this being in addition to some-

thing like \$24,000,000 of improvements now under way on the system or partly completed. The work in contemplation must first be approved by the directors, but it is believed that there will not be any difficulty in securing approval. It is understood that from 1,500,000 to \$2,000,000 will be expended on the Baltimore division, and that \$7,000,000 will be devoted to work in the vicinity of Doe Gully, W. Va., where it is proposed to build two additional tracks from Orleans Road to Little Cacapon, 14½ miles, making a four-tracked railroad as a continuation of the present three-tracked line up to that point. Construction will be heavy, for the road runs through the mountains there.

It is also intended to build a \$25,000 station at Martinsburg, W. Va., and to spend \$30,000 on a freight and passenger station at Terra Alta, W. Va. There will be devoted to freight facilities and additional trackage at Parkersburg, W. Va., the sum of \$400,000, and \$200,000 will be used to make a connection between the Ohio River division and the Little Kanawha Railroad. Heavy expenditures are contemplated on the Pittsburgh and Chicago divisions.

NORFOLK TO ALEXANDRIA.

Charter to Build a Railroad Evidently Designed to Enter Washington, D. C.

The Norfolk, Yorktown & Washington Railroad Co. has been chartered at Richmond, Va., for the purpose of building a line from Norfolk to Alexandria, Va., about 156 miles. The railroad will actually begin at Hampton, Va., connection being made by ferry across Hampton Roads from Seawall's Point, and from the latter place over the Virginian Railway to Norfolk. A report from Norfolk says that plans are being perfected to begin construction; capital \$25,000. It is planned to cross the York River not far from its mouth.

The officers are C. T. Hobart, president; Leon C. Steele and W. W. Terry, vice-presidents; S. S. Pope, treasurer, all of Norfolk. Mr. Steele is also secretary. The directors are Messrs. Hobart and Terry, Louis Feuerstein, Louis Mansbach, Harvey M. Dickson, W. F. Dusch and George H. Lewis of Norfolk, and C. T. Blake of Greensburg, Pa.

New Equipment, Rails, Etc.

Pennsylvania Railroad has ordered built at its Altoona shops 80 freight locomotives, 18 shifting locomotives and 8 passenger locomotives; also 80 passenger train cars, consisting of 50 suburban steel passenger coaches and 30 combination baggage and mail cars.

International & Great Northern Railroad has ordered 10 heavy locomotives and 1000 freight cars of different patterns. In connection with the Texas & Pacific it has also ordered 24,000 tons of 90-pound steel rails. The manufacturers are not announced.

L. P. Campbell, Baileyton, Tenn., says he is in the market for motor cars to be used on a line from Baileyton to Greeneville, Tenn.

Baltimore & Ohio has ordered 60 Mikado locomotives and 30 Pacific locomotives from the Baldwin Works, Philadelphia, and 10 Mallet locomotives from the American Locomotive Co., New York.

Chicago, Rock Island & Pacific Railway is reported to have ordered 50 cabooses from the Whipple Car Co., 72 W. Adams street, Chicago.

Norfolk & Western is reported to have ordered 60,000 tons of shapes, plates and bars from Pittsburgh mills for 4500 cars, which it will build in its shops at Roanoke.

Virginia Railway & Power Co. is reported about to buy 10 cars for its Norfolk lines.

Illinois Central, says a report, will purchase 2000 freight cars and 30 passenger cars.

Fairburn & Atlanta Railway, it is reported, may purchase 30 double truck electric cars.

New Orleans Public Belt Railroad has received two 60-ton locomotives from the Baldwin Works.

Norfolk Southern, says a market report, is making inquiries for 300 flat cars and 300 box cars.

Telephone Succeeds Telegraph.

The use of telephones for handling train orders and messages is to be extended over 117 miles of the Cincinnati, New Orleans & Texas Pacific Railway—Queen & Crescent Route—between Cincinnati and Danville, Ky., announcement being made by Horace Baker, general manager, that two copper metallic telephone circuits will be constructed. For two years the company has been using telephones on 137 miles between Danville and Oakdale, Tenn., and the proposed extension of telephone service over the entire line from Cincinnati to Oakdale will leave only 87 miles between Oakdale and Chattanooga operated by telegraph.

In connection with this announcement the company says that this is one of the steps in its policy of bringing its lines to the highest possible state of efficiency. The telephone system has several advantages over the telegraph. Service is quicker, and it is easier to guard against errors. The dispatcher writes the order as he sends it, spelling out all figures, such as train numbers, engine numbers, and time. The receiver writes the message as he receives it and then repeats it to the dispatcher, spelling out all figures. The telephone brings the sender and receiver into close touch, and the dispatcher, should occasion arise, can talk personally to the conductor or engineer of any train on his division.

Extension to Freeport, Tex.

[Special Cor. Manufacturers Record.]

Freeport, Tex., March 3.

President Felix Jackson of the Houston & Brazos Valley Railway announces that an amendment to its charter has been approved by the Attorney-General of Texas and filed with the Secretary of State at Austin, authorizing an extension of the main line from Velasco to Freeport, and thence to Bryan Heights, where the Freeport Sulphur Co.'s mine is located. The extension will be about five miles long. The amendment also provides for the removal of the company's general offices to Freeport, the new terminus of the road, which will now cross the Brazos River from the east to the west bank by means of a car float service already installed. It is reported that work on its new depot at Freeport, the laying of track and terminal connections will soon begin.

Application to organize the Freeport National Bank, with a capital stock of \$50,000, is approved by the Comptroller of the Currency. Plans for the bank building have been finished and approved, and it is reported that the contract for its construction has been let to V. W. Flowerree of Kansas City, work to be started within a few weeks. It is understood that the building will be a two-story brick structure of substantial character.

Central Arkansas Railway & Light.

The recent charter of the Central Arkansas Railway & Light Co. at Richmond, Va., is explained by a report from

Hot Springs, Ark., saying that the public utilities there, owned and operated as the Hot Springs Water Co. by interests represented by Col. S. W. Fordyce of Little Rock and Charles H. McKee of Hot Springs, have been taken over by the Federal Light & Traction Co., 60 Broadway, New York, and that the Central Arkansas Railway & Light Corporation will operate the utilities at Hot Springs, as well as others elsewhere in Arkansas.

It is further stated that the sale of the Hot Springs properties was announced by Messrs. Fordyce and McKee, and by C. C. Chappelle, vice-president and general manager of the Federal Light & Traction Co. Messrs. Fordyce and McKee will continue to have an interest in the properties. The incorporators of the Central Arkansas Railway & Light Corporation are, as heretofore stated, Wm. L. McKee, president, 1449 President street, Brooklyn, N. Y.; L. C. Gerry, 166 W. 94th St., and John B. Marsh, secretary, 4 W. 53d street, both of New York city.

For an Interurban Line.

Chamber of Commerce,
Bluefield, W. Va., February 28

Editor Manufacturers Record:

The Chamber of Commerce is behind the project to construct an interurban line from Bluefield to Princeton, the county-seat of Mercer county, 12 miles distant. The right of way for this line has been donated by the property-holders between the two cities, and preliminary surveys have been made. An option has been secured on the property of the Princeton Power Co., operating a light and power plant in Princeton, and its lines will be extended to Bluefield, the capital stock of the company being increased and bonds issued to cover the cost of constructing and equipping the extended line. Edison storage battery cars are contemplated for use on the interurban. These passenger cars and one express car of the most improved type will constitute the rolling stock, and an hourly service for the passenger cars and a tri-daily service for the express car will be maintained. C. T. BOYKIN, Secretary.

Large Interlocking Plant.

The new interlocking plant which the Southern Railway has installed at Griffin, Ga., to protect and facilitate train movement over the Central of Georgia Railway crossing has been put in service. It is of the latest improved type, and is one of the largest mechanical plants of the kind in the Southeast, containing 64 levers. It is equipped with derrails to make collisions physically impossible. Power distant signals and annunciators, operated by electricity, announce the approach of trains when they are a mile and a half from the crossing, thus obviating necessity for stops. The operator will have charge of all the movements, and trainmen and yard switchmen will hereafter not be required to operate the switches. Similar plants have recently been installed by the Southern Railway at Silver Creek, Ooltewah Junction and Rome.

Improvements at Baltimore.

The Pennsylvania Railroad Co. contemplates considerable improvements at Baltimore, but a decision has not been attained by its officers as to the character and extent of the work necessary. It is however, understood that particular attention will be given to grain and coal-handling facilities and an enlargement of trackage to accommodate increasing traffic. It is expected that there will be a revival of the plan to construct a line

around the city for through freight trains, so that all traffic will not be obliged to go through the Union Station yards. The company is working on the problems before it in connection with the desired improvements, and an announcement as to what it wishes to do may be made soon.

Texas Approves a Merger.

A late report from Austin, Tex., says that the Senate of the Texas Legislature has finally passed over the Governor's veto the bill authorizing the Missouri, Kansas & Texas Railway to merge under its management the Texas Central Railroad, the Wichita Falls & Northwestern Railway, the Wichita Falls & Southern Railway and the Beaumont & Great Northern Railroad. The House having already passed the bill over the veto, it therefore becomes law.

Mississippi Northwestern Officials.

President W. G. Seaver of the Mississippi Northwestern Railroad Co., which proposes to construct a line from Biloxi, northwest to Omaha, Neb., announces that its general offices are established at Biloxi, Miss. Capt. J. M. Searles is chief engineer and Nicholas Tate Jones, division engineer, at that city. Roland C. Fraser is purchasing agent, Hudson Terminal Building, 50 Church street, New York city. H. H. Roof, Biloxi, is general architect. C. G. Scot is stationer, also at Biloxi. Hudson & McKay of Vicksburg, Miss., are the company's general attorneys for Mississippi and Arkansas. The president's office in New York is at 10 Wall street.

Louisville & Nashville Bonds Bought

A report from New York says that Kissel, Kinnicutt & Co. have bought \$4,500,000 of Atlanta, Knoxville & Cincinnati divisional 4 per cent. bonds (Louisville & Nashville system) and 4,000,000 of Louisville & Nashville unified 4s from J. P. Morgan & Co., and are offering them privately in conjunction with Harris, Forbes & Co.

A Consolidation at Newport News.

It is proposed to merge under one management the Newport News & Old Point Railway & Electric Co., the Citizens' Railway, Light & Power Co. of Newport News and the Newport News Gas Co. Application for permission to accomplish the merger has been made to the City Council of Newport News, Va., by J. N. Shannahan, general manager of the companies, and the proposition has been favorably reported by a committee of that body.

Railroad Notes.

The Republic Railway & Light Co. reports for December, 1912: Gross earnings \$279,046, increase as compared with the same month of 1911, \$31,660; net earnings \$114,263, increase \$11,368. For the year ended December 31, gross earnings \$2,663,762, increase as compared with 1911, \$261,766; net earnings \$1,057,140, increase \$106,155.

The Galveston, Houston & Henderson Railroad Co. has sold to Speyer & Co. of New York \$2,000,000 of 5 per cent. first mortgage bonds out of a total issue of \$5,000,000, the bonds disposed of being to refund an equal amount of bonds which mature on April 1. The other \$3,000,000 are to be reserved for issue from time to time to reimburse the company for expenditures made subsequent to December 31, 1912, in the acquisition of additional property or improvements, betterments and equipment.

MINING

RARE-EARTH MINERALS.

United States Geological Survey Report on Llano-Burnet Region, Texas.

The Llano-Burnet folio, No. 183 of the Geologic Atlas of the United States, by Sidney Paige, has been issued by the United States Geological Survey. It describes an area lying in Llano, Burnet, Mason, San Saba, Travis and Williamson counties, Texas, the more important towns being Llano, Burnet, Marble Falls and Bertram. Llano county is distinctly a stock-raising region, but much farming is carried on there. Burnet county is devoted more to farming, but also raises much stock.

The region is of particular geologic interest, in that erosion has exposed to view the pre-Cambrian schist and granite complex underlying the Paleozoic and later rocks. Besides giving an account of the geologic and physiographic history of the region, the folio is of interest to mining and business men in describing the mineral resources. These are, in the order of their present importance, building stone, rare-earth minerals, iron ore, gold, graphite, serpentine, talc, sphalerite, lead ore, pyrite, copper ore, manganese ore, oil and water. Of these, only the first two are of commercial importance at present, the copper and manganese ores and the oil are probably valueless, and the value of the remainder is unproved. Detailed descriptions of these deposits have already been given in Bulletin 450 of the Geological Survey, by the same author, but this folio, with its more detailed maps, should be of added interest.

At present most of the stone quarried is especially suitable for monuments, and is so used. With the increasing growth of large cities in the South, and with additional transportation facilities, the granite industry in this region should become more extensive than it is at present.

Few if any other deposits of rare-earth minerals in the world, and certainly no others in America outside of the localities where monazite is found, are so extensive as that of Baringer Hill, which is 12 miles north of Kingsland, the nearest railroad point, 16 miles west of Burnet and 22 miles northeast of Llano. It is a low mound rising about 40 feet above the river, and is formed by an irregular pipe or short dike of pegmatite that is more resistant to erosion than the surrounding rock.

The economic interest in the rare-earth minerals centers in their incandescence on being heated, and owing to this property they have been much sought. Thoria, beryllia, yttria and zirconia show it in the greatest degree, but thoria and beryllia, which form the bulk of the incandescent oxides used in gas mantles, are too easily volatilized to be used in an electric glower, such as that of the Nernst lamp. Yttria and zirconia, however, will stand the necessary high temperature. Before the discovery of this deposit it was practically impossible to get sufficient yttria-bearing minerals to manufacture the lamps. The needs of the Nernst Lamp Co., which owns the deposit, require only the occasional working of the mine, and after enough yttria is obtained to supply its wants for a few months ahead the mine is closed. But a few hundred pounds a year is extracted.

The folio comprises 16 pages of text and three maps, one showing topography, a second showing the areal distribution of the different formations, and a third delineating the structure and economic

geology. It may be purchased for 25 cents on application to the Director of the Geological Survey, Washington, D. C.

Spelter Production in 1912.

In 1912, of the total production of 1,063,121 tons of primary spelter in the world, 338,806 tons, or 31.9 per cent., were produced in the United States. Of the United States production, 14,899 tons were from foreign ores and 323,907 tons were from domestic ores. Of that amount, 152,840 tons, or nearly 48 per cent., were produced in the South, 149,557 tons in Missouri, 2041 tons in Oklahoma, 1935 tons in Tennessee, 604 tons in Arkansas, 394 tons in Kentucky, 245 tons in Texas and 62 tons in Virginia.

The United States Geological Survey has just issued its advance statement of spelter production and consumption in 1912. This statement, prepared by C. E. Siebenthal, gives the final figures of output by the zinc smelters for the year, distributed both by States producing the ore and by States in which the ore was smelted, thus giving a measure of the zinc-mining industry as well as of the zinc-smelting industry. The zinc ore made into pigments is not included in this statement; hence the full extent of the zinc-mining industry is not covered. The imports and exports of spelter, zinc dross and zinc ore are also given, as well as a list of smelters and their capacity, revised to the close of 1912, together with additions being built during the first months of 1913. A long chart shows graphically the fluctuations for the last seven years in the price of spelter both at St. Louis and at London, and in the price of 60 per cent. zinc concentrates at Joplin.

The production of spelter from secondary sources, such as skimmings and drosses also made large gains, being estimated at 50,000 tons, of which 21,000 tons was redistilled, partly at plants devoted exclusively to the redistillation of secondary materials. The consumption in the United States of spelter made from ore was 340,372 tons, an increase of 60,313 tons, or 21.5 per cent., over that of the previous year. The increase in consumption was made possible by the large imports of spelter. For the last four months of the year the average St. Louis price of spelter was more than 1½ cents above the London price. It was during this period that the larger part of the 11,115 tons of foreign spelter was imported.

The list of smelters shows a total capacity of 107,948 retorts at the close of 1912, with additions of 12,216 retorts under construction. With the exception of 576 retorts, the additions are all in Illinois. It should be borne in mind that all of this capacity will not be effective for smelting ore, for several of the plants listed are devoted partly or exclusively to the recovery of spelter from secondary materials.

Radium Extraction in the United States.

The extent to which the production of radium has been carried and the developments through which this country may take the lead in the production of radium are stated by E. H. Heinrichs, Westinghouse Building, Pittsburgh, Pa., as follows:

"The discovery has been made in Colorado of a practically inexhaustible supply of Carnotite ore, from which radium is being recovered in very appreciable quantities. The company making the developments and producing radium from the ore is the Standard Chemical Co. of Pittsburgh, Pa. That company has acquired 91 ore claims in Paradox Valley, Montrose

county, Colorado, covering approximately an area of 1000 acres. The deposits found there have been thoroughly tested and shown to represent a very high grade Carnotite ore consisting of uranium, vanadium and radium values. The mines so far have an output of 100 tons per month, from which the refining process yields about one grain of radium.

"While the ore deposits are easily accessible and the mining does not present any physical difficulties, the transportation of the product is somewhat more complicated. The company's reduction mills are located at Canonsburg, Washington county, Pennsylvania, about 19 miles from Pittsburgh. The ore to reach this place is packed at the mines in bags containing about 80 pounds each. These bags are carried by burros on their backs through the Uncompahgre Mountain region for a distance of 20 miles. There the bags are loaded on wagons and hauled for 35 miles to Placerville, which is the nearest shipping point. The railroad at Placerville is a narrow-gauge line which runs to Pueblo, Colo., and when a shipment arrives there it has to be reloaded to the main line for transportation to its destination at the Canonsburg Reduction Mills. At these mills through the process of reduction the radium values in the form of raw chlorides are extracted. In this shape they are taken to the company's radium research laboratory at Forbes and Meyran avenues, in the city of Pittsburgh.

"This laboratory is a unique institution. There is none either in this country or even in Europe equal to it in completeness of equipment or in the scope as well as elaborateness of its operations. There is no other radium laboratory producing so large a quantity of this precious metal, nor is there a place where radium applications and radium effects are more thoroughly subjected to tests through all their various ramifications than here. The element is refined here to the most infinitesimal proportions. The most modern methods of radium production are in vogue, practised by a staff of scientific men who have been gathered from many institutes of learning at home and abroad. The chief of the laboratory is Dr. Otto Brill, a graduate of the University of Vienna, a co-worker of Dr. Walter Nernst, the inventor of the Nernst lamp and a former assistant of Sir William Ramsay in London, England.

"The product of the laboratory is used for scientific as well as for medical and therapeutic purposes. Its applications and effects are made a most minute study, and experiments for new developments in this line are constantly carried on.

"With its supply of ore, which is considered practically inexhaustible, and with its great financial resources to carry on its operations, this laboratory expects within the near future to be in a position to furnish the world with radium values in larger quantities than may be obtained anywhere else."

For Texas Iron Industry.

Ben E. Cabell, chairman of Prison Commission, Huntsville, Tex., writes to the MANUFACTURERS RECORD as follows:

"The Prison System has leased the Rusk iron furnace and pipe foundry to Messrs. O'Neal, Barringer and King. J. J. King lives at Texarkana, Tex.; H. A. O'Neal at Linden, Tex. The agreement is that they operate this furnace and foundry and that they begin operations not later than the first of October. It is a 100 tons capacity furnace, in connection with the pipe foundry, which is very complete. These parties who have leased this property have bought a great deal of iron properties in Cass, Marion and

other counties, and their object is to use part of their ore there with part of the ore adjacent to the Rusk prison."

Will Oil Be Found?

Editor Manufacturers Record:

The MANUFACTURERS RECORD has been of inestimable benefit to the State of Alabama, and especially to the Birmingham district, in giving to the world elaborate and comprehensive knowledge of its vast ore and coal deposits and their exceptional juxtaposition, permitting the manufacture of iron and steel at a smaller cost than in any other part of the world. The facts are so well attested, and, as a matter of fact, so well established, that they are now universally admitted. However, when Alabama is considered from another viewpoint it will be admitted that iron and coal, important as they are for the world's consumption, constitute only a fraction of her marvelous, material resources.

Geologically, or by rock structure, it appears practically certain that the State of Alabama in the near future must become one of the largest producers of petroleum, gas and other forms of the hydrocarbons. To give verity to this claim, the reader is referred to an extract from the exhaustive article on petroleum in the Encyclopedia Britannica, page 317, as follows:

"The main requisite for an oil and gas field are a porous reservoir and an impervious covering; in addition to these two necessary features, structural conditions are equally as important." It is hardly necessary to inform the reader that by structural conditions is meant rock disturbance, resulting in what is known in geology as the anticline. These features are imperative, and will dominate every great oil and gas reservoir. They constitute a geological "sine qua non."

It has been thought by persons not thoroughly informed that the Trenton limestone is the true home of the hydrocarbon, because oil and gas are found in this rock in the States of Indiana and Ohio. The eighth annual report of the United States Geological Survey contains an able and scientific treatment of the Trenton limestone. The essay concludes as follows:

"It is not safe to say that the Trenton limestone is in any locality an oil and gas rock, unless it can be shown that it has undergone a dolomitic replacement by which porosity is established." Dolomitization has occurred eccentrically in the Trenton, that is, in isolated areas, so that if the drill encounters a dolomitic area oil is obtained; otherwise the well is dry.

The following is taken from the report of the State Geologist of West Virginia, said to be the best equipped oil and gas authority in our country, Mr. I. C. White: "The anticlinal theory is thoroughly established. In Europe and Russia no theory but the anticline has any followers whatever."

To epitomize the three foregoing acknowledged authorities: For the location of an oil and gas well three geologic conditions are imperative, perfect rock structure, porosity and efficient covering. Mr. Eugene Smith, the eminent State Geologist of Alabama, declares that Alabama contains one of the largest anticlines in the world, known as the Sequatchie anticline, passing a few miles west of Birmingham. One of the three conditions is thus complied with.

About 4000 feet, perhaps a few hundred feet less, below the surface of the anticline there is a capacious magnesian limestone, known as the Knox dolomite, 3000 feet thick and more than 30 miles

broad. This rock contains from 30 to 40 per cent. magnesia, rendering it extremely porous. The second condition is complied with. Above the great magnesian limestone, and resting on it, is the noted impervious Trenton limestone, from 750 to 1000 feet thick. Oil accumulated in the magnesian limestone could not escape through the compact Trenton limestone.

The three conditions declared by all the eminent authorities that constitute an oil and gas field, namely, perfect structure, porosity and efficient covering, are embraced in the great Sequatchie anticline a few miles west of Birmingham.

Now let us reason by analogy. If oil sands in other sections from 5 to 25 feet thick yield daily thousands of barrels of oil, can we not logically expect an enormous output from a magnesian limestone 4000 feet deep, 3000 feet thick and 30 miles broad? One of the most thoughtful and experienced mineralogists of Alabama told me that 100,000 barrels per day could not surprise him.

Embraced in the Sequatchie anticline are two oil and gas horizons. The one above the Trenton limestone, called the Hartsell sandstone, approximately 2500 feet deep; the other below the Trenton, called the Knox dolomite, between 3500 and 4000 feet deep. The Hartsell sandstone has often been reached, invariably yielding a good gas pressure. The gas has been utilized to some extent.

In conclusion, will say that the question about oil and gas in Alabama will soon be settled. An oil and gas company, headed by a responsible and leading citizen, H. M. McNutt, is boring in the Sequatchie anticline about 20 miles west of Birmingham. The hole is now something over 3000 feet, having encountered the Trenton limestone at a depth of approximately 2300 feet and penetrated it about 700 feet. The bottom of the well, therefore, cannot be but a few hundred feet above the magnesian reservoir. As a matter of fact, oil of the highest grade, equal to the best Pennsylvania oil, oozes into the bottom of the drill hole, either by way of a small fissure or from enormous pressure. This fairly suggests that the great Knox dolomite is an oil reservoir. The only question remaining to be settled is, "How much?"

E. EASTMAN.

Birmingham, Ala.

Iron Ores in North Carolina and Tennessee.

Geo. B. Greene, cashier of the Mitchell County Bank, Bakersville, N. C., writes the MANUFACTURERS RECORD:

"At the present time I have under option some very likely looking prospects for good iron mines, but have not yet gotten in touch with anybody who wants to buy. The matter is new, and I have not yet had time to exploit it. The veins are of such width as to indicate a very large amount of ore, and assay shows up well. It is in an iron territory, with every indication favorable—here on the Tennessee and North Carolina line. Would you give me the name of some party or parties whom you think might be interested in knowing of it?"

To Develop 1000 Acres.

The D. C. Thomas Coal Co., capitalized at \$50,000 and incorporated in January by Ohio and Pennsylvania capitalists, has organized to develop about 1000 acres of coal land near Seng, W. Va., where it is now opening mines. D. C. Thomas of Seng is president and manager; J. W. Blower is vice-president and treasurer; E. B. Graham is secretary, both of Columbus, O.

To Mine Georgia Iron.

The Sugar Valley (Ga.) Brown Ore Mining Co. has purchased and will develop 760 acres of iron land four mile from Sugar Valley. It will construct a standard-gauge railway to the property and build a mining plant. Its officers are: President-treasurer, F. B. Martin; general manager, J. R. Ryan; secretary, H. L. Davis; all of Chattanooga, Tenn.

A Proposed \$1,000,000 Company.

Dr. George Kimball and J. E. Newton of Camden, Ark., plan the organization of a \$1,000,000 corporation to develop coal and clay property in Ouachita county, Arkansas. Their plans include the opening of coal mines, the construction of a pottery and the manufacture of tanning fluid, creosote oil and black carbon.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

To Develop Virginia Land.

Bailey Bros., Luray, Va., write to the MANUFACTURERS RECORD as follows:

"This firm has purchased 640 acres land eight miles north of Luray, Va., and in Page county, within two miles of railroad. This land has about 2,000,000 feet hardwood and pine timber on it, and just at present we do not expect to begin operation, but will in the next few months. We are not yet in position to give out plans of how we shall move this timber, or if we shall have to purchase any additional machinery. The land is the finest fruit land in the valley; there is now on the place 700 young fruit trees which are bearing, as well as about 1000 peach trees which are bearing. This land will be developed into fruit land."

Big Lumber Plant.

Referring to plans for rebuilding its plant, the Santee River Cypress Lumber Co., Ferguson, S. C., writes to the MANUFACTURERS RECORD as follows:

"Large planing mill, box shop, dressed and rough lumber sheds to be effected by contract. Buildings cover space 350x400 feet, to have concrete floor and concrete piers for building support, balance wood. Will let grading and leveling of ground covering approximately 20,000 yards of dirt excavating and filling, together with concrete work, separately, or the entire job combined. Ground plans completed; detail plans in progress. Correspondence with responsible contractors invited."

Completing Big Mill.

The Tennessee Timber, Coal & Iron Co. will soon complete its mill at Catoosa, Tenn., the daily capacity to be 75,000 feet of lumber. This company owns 65,000 acres of Morgan, Fentress and Cumberland county coal, timber and iron property. It has constructed a standard-gauge railway from Nemo, Tenn., to Catoosa, a distance of four miles, and will extend it to Jamestown. A town is being developed at the mill site, water and light plants being in course of installation. Boston capitalists control this company, whose plans were previously announced.

For Lumber and Veneer.

Referring to recent reports that it has purchased timber land on Honey Island, the Globe Packing Box Co. of New Orleans writes to the MANUFACTURERS RECORD as follows:

"We purchased approximately 14,000 acres of hardwoods, which we will manufacture into lumber and commercial

veneer. We have begun the erection of the veneer factory, which will cost, when completed, approximately \$40,000."

A \$600,000 Lumber Company.

The Louisiana Sawmill Co., Ltd., Alexandria, La., has been organized with \$600,000 capital stock to build a big sawmill and develop a large tract of timber land which has been purchased, besides 15,000 acres to be purchased. Its officers are: President, J. E. Crawford of Oklahoma City; vice-president, S. R. Lee of Alexandria; secretary, B. H. Miller of Oklahoma City; treasurer, H. B. Crawford of St. Louis.

A Mississippi Timber Purchase.

J. W. Caraway of Tylertown, Miss., and L. S. Quin of Holmesville, Miss., have purchased Moriarity and Pike county (Mississippi) timber land reported to contain 12,000,000 feet of timber. This property is located about nine miles east of Tylertown, and the purchasers will cut and market the timber.

Purchased 100,000 Acres.

Burton & Schwartz of Burton, La., and J. C. Turner of the J. C. Turner Lumber Co., New York, are reported to have purchased 100,000 acres of Southern Florida cypress land for development, but Burton & Schwartz wire the MANUFACTURERS RECORD: "Will not develop for some time."

TEXTILES

To Utilize Linters.

The Memphis (Tenn.) Cotton Manufacturing Co., writes to the MANUFACTURERS RECORD as follows:

"This company was organized on February 5 with a capital stock of \$250,000, of which \$175,000 has been subscribed in Memphis. The following officers were elected at the directors' meeting, held at the company's office, 1201-2 Central Bank Building: George W. Fooshe, president; G. H. Barney, vice-president; A. L. Gardner, vice-president; W. T. McLain, secretary. The directors are J. H. Hines, Geo. W. Fooshe, A. L. Gardner, G. H. Barney, W. T. McLain and J. H. Robinson. This company proposes to erect a manufacturing plant, costing for buildings and equipment in the neighborhood of \$100,000. From present indications we will commence building operations within the next 60 days. The greater part of the machinery necessary for the equipment of this plant has been designed in Germany, and it will take some time to receive this machinery and assemble it here. We expect, however, to have our plant in operation by the middle of next July."

This company was recently reported incorporated, and it intends to manufacture marketable cotton goods from linters, using the A. L. Gardner process for reclaiming linters.

Eureka Cotton Mills.

The Eureka Cotton Mills' recently reported annex will be a 32x75-foot addition to weaverroom, of brick construction, J. A. Jones of Charlotte being the contractor. This building will be completed in April, and the company will then add 100 looms, which have been ordered from the Draper Company of Hopedale, Mass. About 25,000 spindles are now being operated by the Eureka Cotton Mills, Chester, S. C.

The Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton

brought into sight during the first six months of the present season was 11,722,179 bales, a decrease under the same period last year of 1,437,864 bales. The exports were 6,752,381 bales, a decrease of 1,168,632 bales. The takings were, by Northern spinners, 1,886,938 bales, a decrease of 11,622 bales; by Southern spinners, 2,025,368 bales, an increase of 336,890 bales.

The Necronsett Mills.

The Necronsett Mills, Cumberland, N. C., succeeds the Cumberland Mills owned by the J. Frederic Houston Company, with about 5000 spindles, and is reported as to double that equipment and build an additional mill to have 10,000 spindles. The Necronsett company was recently reported incorporated, with \$400,000 capital stock, by J. Frederic Houston of Philadelphia and associates.

Eagle & Phenix Additions.

The Eagle & Phenix Mills, Columbus, Ga., will add considerable equipment and has awarded the contracts. This new machinery will include 3156 spindles, 272 looms, 2 dyeing machines, 1 warp tier, 1 vacuum dyeing machine, 8 drawing frames, 120 deliveries, 2 lap winders, 3 fly frames, 6 40-inch breaker cards, 10 40-inch finisher lappers, etc.

Textile Notes.

The Albion Mills, Mt. Holly, N. C., will install 12 spinning frames (2449 spindles), for which contract has been awarded to the Fales & Jenks Machine Co. of Pawtucket, R. I.

The Mt. Holly (N. C.) Cotton Mills will install eight new spinning frames (2112 spindles) to replace old equipment, the contract having been awarded to the Whitin Machine Works of Whitinsville, Mass.

The Hamilton-Carhartt Cotton Mills, Rock Hill, S. C., has awarded contract to Love & Owens of Rock Hill for the construction of a one-story addition to enlarge slasher-room. The company will also add new machinery on its main floor.

The Pacolet (S. C.) Manufacturing Co. will add 30 new spinning frames, 6 speeders, 2 spoolers, 2 warpers, etc., this machinery to be furnished by the Saco-Lowell Shops of Newton Upper Falls, Mass., and the Draper Company of Hopedale, Mass.

Machinery Wanted for Cuba.

G. C. Rowe, manager, Hotel Roma, Havana, Cuba, writes to the MANUFACTURERS RECORD as follows:

"Please send me the names and addresses of makers of machines for sawing building stone at sites, for shucking and shelling corn and for crushing and washing sand. Such machines are required by my clients, and it is not without chagrin that I have to tell them that no such machines are made in our great United States and see them turn to representatives of German manufacturers and place orders."

Binding Twine Prices.

T. Soegaard, Consulate of Denmark, New Orleans, writes to the MANUFACTURERS RECORD as follows:

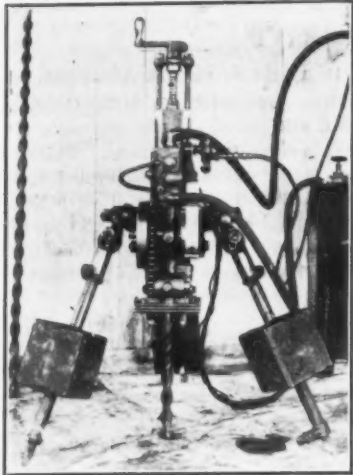
"Kindly give men names of independent manufacturers of binding twine who can quote prices on said article for export to Denmark and neighboring countries, for which Copenhagen is the distributing point. About 2000 tons of binding twine is imported annually for the market. This inquiry is made on behalf of an importer in Denmark, who sells between 300 and 400 tons of binding twine annually."

MECHANICAL

New Gasoline Rock Drill.

A rock drill operated by gasoline power has been developed by L. L. Scott, 1013 Chestnut street, St. Louis, Mo., who has been working on gasoline rock drills for the past seven years. Mr. Scott has been engaged in the manufacture of gas engines and mining machinery for over 14 years.

The type of machine, of which four sizes are manufactured, is shown in the accompanying illustration. The smallest size does not need to be mounted, but is moved by hand. It weighs only 35 pounds; the next size weighs 85 pounds



SCOTT GASOLINE ROCK DRILL.

without the mounting, and will drill holes up to five feet in depth; the next weighs 140 pounds, and will drill holes 10 feet deep; the largest machine weighs 265 pounds, and will drill holes up to 20 feet or more. All of these drilling engines work on the two-cycle single-acting principle, and are practically free from gears, cams and push rods. It is stated that back firing is impossible, and that speeds up to 3000 revolutions per minute can be had if desired. The machines drill rock on the hammer principle. The hammer piston is made of vanadium steel, and is acted on directly by the 300 pounds explosive pressure. It strikes the blow on the shank of the drill steel, and is free from all connected parts of the machine. The piston is moved to the rear by energy stored in the flywheel, and is picked up for this return stroke by the air cushion. The drill steels are automatically rotated by means of a chain and sprockets which connect the crankshaft to the rotator shaft, the rotator shaft being formed with a worm, which drives a worm wheel formed on the drill chuck. This chuck holds the shank of the steel drill loosely. The drill steels are formed with small lugs at the shank end which fit in the corresponding slots in the chuck. Two types of drill steels are used; one is the common hollow steel through which water and a slight explosive pressure are sent for the purpose of removing the cuttings from the drill hole; the other is solid, and is formed with a spiral conveyor which works the rock cuttings out of the hole as it is rotated. This spiral steel does away with the water connections, but on down holes water is poured into the drill hole.

It is stated that this drill has been very carefully worked out, and is the result of much experimenting and the building of 18 different models; that this final machine is light for its capacity and will drill at the rate of from 3 to 15 inches per minute. The largest machine uses about

two gallons of gasoline for 10 hours' run. In confined places the exhaust is pumped into water or to the mouth of the shaft or tunnel. With ventilation, it is not necessary to pipe out the exhaust.

These drills have been operated in mines near Joplin, Mo., and in quarries around St. Louis. One of the machines was operated for several months at the Fruin-Bambrick Construction Co.'s St. Louis quarry, and it was at that place that the final tests were made. Among the claims for this drill are that the extensive power plant and pipe lines are eliminated; that a saving of fuel is effected, and that wear on parts is at a minimum. Since the hammer piston does not rotate, the reaming effect in the cylinder is prevented. Since the rotation of the drill steel is accomplished by a purely rotating motion, the rotating device will last indefinitely and the use of any kind of a drill bit best suited for the work is permitted.

Gas-Electric Motor Cars.

Gas-electric motors cars for railway use are being placed in service by the Chicago, Milwaukee & Puget Sound Railway Co. on branch lines in the State of Washington; by the Great Northern Railway Co., St. Paul, Minn.; Minneapolis, St. Paul, Rochester & Dubuque Traction Co., Minneapolis, Minn., and other roads. The accompanying illustration shows the gas-electric motor car of the type that has been placed in service by the Chicago, Milwaukee & Puget Sound Railway Co., Seattle, Wash. The car is 70 feet 5 inches long, 10 feet 5 inches wide, weight 50 tons, and has a seating capacity for 77 persons, together with a baggage-room 15 feet long and a cab 11 feet 11 inches long, containing the power plant. They are of standard steel construction, with interior trimming of mahogany, and were built by the Brill Company, Philadelphia. The power equipment is supplied by the General Electric Co., Schenectady, N. Y. The generating unit consists of an eight-cylinder four-cycle gas engine of the "V" type, direct connected to a 600-volt commutating pole electric generator. The engine is started by compressed air from the main reservoir of the airbrake system. The engine can rotate at normal speed, irrespective of the speed of the car, and deliver its maximum power, which is a



GAS ELECTRIC RAILWAY MOTOR CAR.

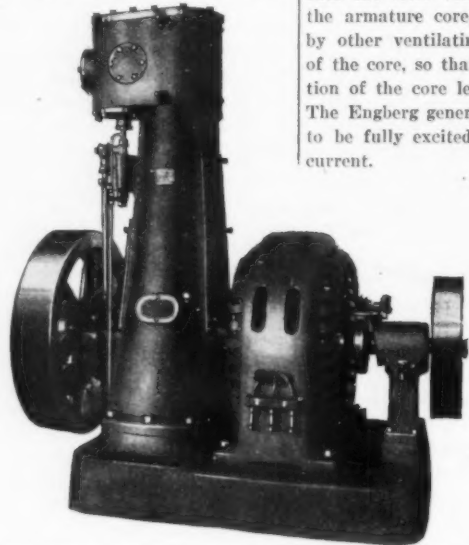
great advantage on grades and other heavy hauling conditions. The control is similar to that of any standard electric trolley car.

Mounted on the axle of the forward truck are two G.-E. 205, 600-volt commutating pole railway motors of 100 horsepower each. The energy is transmitted directly without the intervention of mechanical change speed gearing. A 150-gallon gasoline tank for the power supply is suspended under the car.

These cars made the long trip from Chicago under their own power, a distance of 2200 miles, covering 315 miles in one daylight run.

Engberg's Alternating Current Generating Sets.

An alternating current generator direct connected with engine has been developed by Engberg's Electric & Mechanical Works, St. Joseph, Mich., as shown in the accompanying illustration. These engines and alternators are designed to operate together so that every feature is accurately adapted to its requirements, the units being of compact design and at the same time strong and attractive in appearance. This standard line of alter-



ENGBERG DIRECT-CONNECTED ALTERNATING-CURRENT GENERATOR SET.

nating generating sets consists of sizes up to 70 K. V. A. capacity, and of several different speeds. Where an engine has already been installed, or where a generator may be driven by existing waterwheels or lineshafts, belted generators of capacities from 15 to 50 K. V. A. are provided.

In the Engberg vertical type engine, as shown in the illustration, the accessibility and ease of adjustment of all working parts are distinctive. Movable side doors are provided on each side of the engine, allowing access to the crosshead wristpin and adjacent parts, while the hand-hole plates on the opposite sides give access to the lower end of the connecting rod. The flywheel is so designed as to retain a greater part of the weight up close to the main bearing, thus relieving the

per cent., with a temperature rise less than the standard fixed by the American Institute of Electrical Engineers, and that they will carry momentary overloads of 60 per cent. The standard voltages of 240, 480, 600, 1200 and 2400 are regularly supplied, other voltages being supplied if especially required.

Efficient ventilation is produced by the construction in which the back of the core is practically open to the air and free to radiate the air set in motion by the revolving field. The open tooth supports at each end form ventilating spaces next to the armature core, which is also cooled by other ventilating spaces in the body of the core, so that there is no large section of the core left without ventilation. The Engberg generator fields are designed to be fully excited with 125 volts direct current.

Machines for Mixing Mortar.

The increased use of mortar-mixing machinery has been quickened by the scarcity of labor and the difficulty of getting reliable help. It is believed that in time the mortar mixer will be regarded as an essential part of every builder's equipment, and the "shovel-and-hoe" method will make way for the more advanced ideas.

The Eureka Machine Co. of Lansing, Mich., has created a considerable demand among building and mason contractors for a specially designed machine for the mixing of mortar and retempering plaster. While this demand has heretofore been confined principally to the large building contractors, it has been noted more recently that the smaller builders have commenced to use the machine with

good results. Experience has shown that the "Eureka" mortar mixer effects a saving of about 50 per cent. in labor required to prepare the mixture, and it is stated that a high quality of mortar is insured, and the masons work to better advantage, resulting in an increased amount of work. It is claimed that one man, with the machine, will mix enough mortar for 15 to 20 masons. On extensive work, where the maximum capacity of the machine is wanted, three men will operate it and supply 50 masons. It is not claimed that much can be gained where less than six masons are employed in laying bricks, except in better-mixed mortar being ob-

breaking strain on the shaft. The lubricating system is of the positive feed type, composed of an oil pump situated in the base of the engine, pumping the oil from the oil reservoir up into the sight-feed oil cup, which leads to the distributing trough on the inside of the engine frame. Oil pipes lead from this trough to all movable bearings. The oil is then drawn back into the base to be refiltered and re-pumped. A watershed partition is provided to prevent water from passing down into the engine base from the cylinder and mixing with the oil.

It is stated that Engberg's alternators will carry a continuous overload of 20

tained, but any brick contractor using six men or more will find the advanced method very advantageous.

The accompanying illustration shows the "Eureka" mortar mixer in use in the construction of the new Rice Hotel Building at Houston, Tex. The little machine can be seen on the right, placed close to the building for convenience in operating. The Westlake Construction Co. of St.



EUREKA MORTAR MIXER AT WORK ON RICE BUILDING.

Louis, Mo., who built the Rice Hotel, have three of these machines, two of which have been in use for the past year on the 20 buildings comprising the Cincinnati Hospital with evident satisfaction.

Contractors engaged in masonry and brickwork may obtain full particulars by addressing the Eureka company. An efficient organization and staff of engineers keep in constant touch with field conditions. Catalogue No. 30 shows mortar-mixing equipment and various types and sizes of concrete mixers.

Milburn Oxy-Acetylene Cutting Apparatus.

In order to quickly and economically remove the burned and bent metal debris resulting from the fire in one of the Car-

illustration. It consists of the No. 3-T type of truck-mounted equipment, including the acetylene generator, acetylene cylinder, oxygen cylinder, truck, torches, acetylene hose and oxygen hose, with accessories. A carbide charge of 50 pounds is used, from 1 to 10 torches may be used at one time as required, and the outfit may be easily moved within the range of work. The weight of the empty generator is 400 pounds, truck 426 pounds, outfit complete for shipment, including oxygen cylinders, 1140 pounds.

The building shown in the illustration as it appeared after the fire contained a large amount of iron framework, the principal part of which was composed of 10-inch channel I-beams. The area where the building stood was a mass of buckled iron and steel, twisted into such shapes that it would appear as if months would be required to clear it up, but it was found that the cutting apparatus made short work of it. Only one cutting torch was used, as it was found that it would cut the metal beams into movable lengths faster than a force of five men could load them on rail trucks for removal.

The Alexander Milburn Company, in addition to its cutting apparatus, manufactures portable acetylene gas lights, steam acetylene generators for locomotives and train lighting, acetylene gas machines for country homes, oxygen generators, welding equipment, miners' lights, fixtures and cooking stoves for use with acetylene gas.

The Riley Underfeed Stoker.

A conspicuous feature of the new Riley self-dumping underfeed stoker is that it has moving fuel-bearing grates and moving overfeed grates extending across the entire width of the furnace. It is manufactured by the Sanford Riley Stoker Co., Worcester, Mass. As shown in the accompanying illustration, moving grates carry the fuel down an incline of about 20 degrees with a positive forced feed. The movement of the fuel is effected by the plunger in the retort and by the moving grates, which, all taken together, produce an even distribution of the coal. A nearly uniform thickness of fuel insures active combustion over the whole fire surface.



MILBURN OXY-ACETYLENE CUTTING OUTFIT AT WORK.

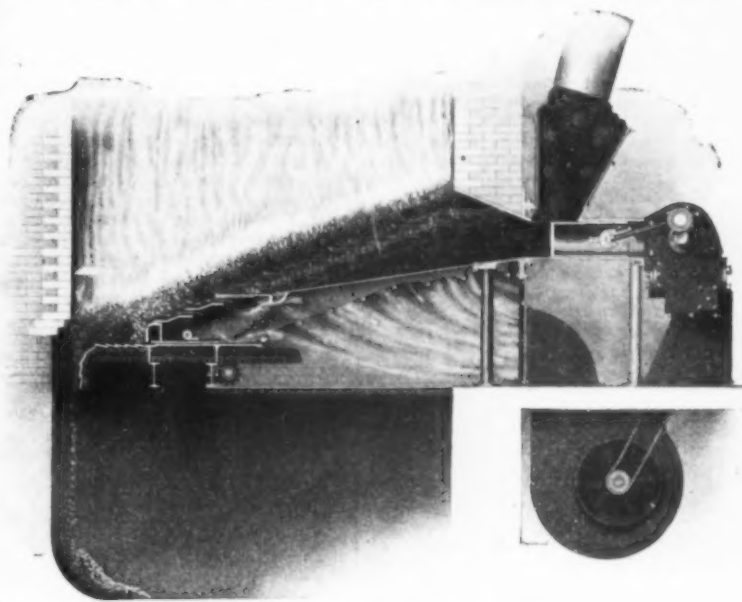
negie Steel Co.'s buildings at its plant in Baltimore, the company purchased an oxy-acetylene cutting outfit manufactured by the Alexander Milburn Company, 1420 W. Baltimore street, Baltimore, Md. This installation is shown in the accompanying

The discharge of the ash is continuous and automatic, which has the advantage over periodic discharge of not bringing down fuel with the ash. At the lower end of the overfeed grates the pusher noses shown in the illustrations force the refuse

slowly but continuously toward the bridge, then over the ash supporting plates, which are hinged together in the form of an apron. The discharge capacity is regulated by the amount of travel given to the pusher noses.

It is claimed that maximum efficiency is insured in the Riley stoker by the fact

and massive, and are also readily accessible. This stoker has a minimum of width of grate per horse-power, since the moving grates insure live fire area over the whole surface. This insures for the Riley stoker a large capacity per foot of width. Among other features, the small amount of head room required is worthy of note,



THE NEW RILEY UNDERFEED STOKER.

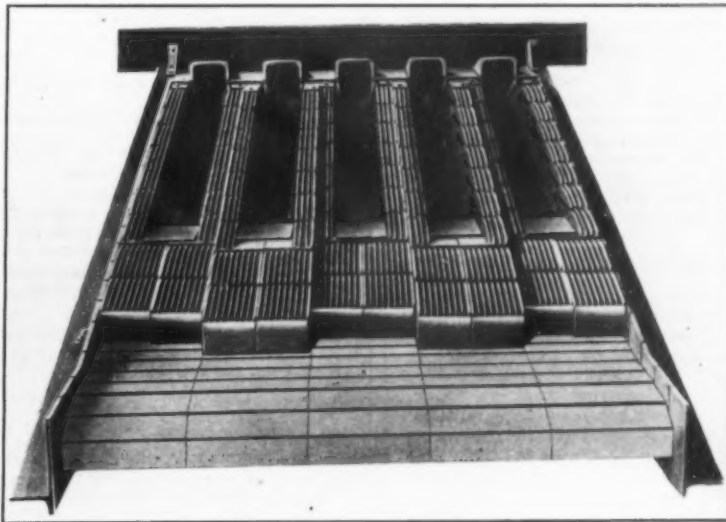
that it is an underfeed type and because the homogeneous condition of the fuel bed prevents the formation of paths through which air might rush wastefully to the stack. There is no interruption to this efficient operation by opening doors or the periodic dumping of accumulated refuse. The ratio of air to coal is mechanically maintained, so that no guesswork enters into it. Flue gas analysis determines this ratio, which is kept constant by driving both the stoker and the fan from the same shaft.

as it permits ample combustion chamber; also the complete separation of the ashpit from the fireroom, preventing obnoxious gases and dust.

For India's Trade.

Sooleman Mohamad Kadwa, No. 24 in 26th street, Rangoon, India, writes to the MANUFACTURERS RECORD as follows:

"I am writing to certain representative firms of your country for wire nails, galvanized-iron sheets and other hardware, mentioning your journal as the source of



GRATE SURFACE, FEED RETORTS, AND ASH APRON.

It is well known that underfeed combustion reduces the formation of smoke, since the hydrocarbon gases are completely burned.

The continual reciprocating motion of the moving grates in opposite directions for adjacent retorts forms a shearing line between each pair, so that clinkers are broken up and the formation of heavy clinkers is prevented. With this new stoker there is but one plunger for each part, so that the working parts are reduced to a minimum. The driving mechanism is visible from the outside and easily accessible; the moving retort sections are large

my information, and hope to hear from them very shortly. Meanwhile I shall deem it a favor if you will publish that I am in the market for wire nails, galvanized-iron sheets, pipes, paints, jute and cotton twines, buttons of all patterns, combs, spoons, etc.; that I will import and am importing them at 90 days from manufacturers direct; that sufficient references will be given to any desirous of trade connection with Burma, and would undertake sole agency in any lines connected with hardware, clocks, wicks, lamps, etc., after mutual agreement as to terms and supplies."

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

BRIDGES, CULVERTS, VIADUCTS

Ga., Savannah.—W. O'D. Rockwell, City Engineer, received revised plans for proposed Habersham St. viaduct from engineering department, Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C.; estimated cost, \$190,000, divided equally between city and railroad.

N. C., Charlotte.—Executive board awarded contract to Travers-Wood Company of Richmond, Va., to construct reinforced concrete bridge across tracks of Southern Railway on E. Morehead St.; contract price, \$6500 if old abutments remain, and \$7500 including new abutments. (Call for bids lately noted.)

N. C., Winston-Salem.—Legislature passed bill authorizing construction of iron bridge over Yadkin River between Forsyth and Davie counties; cost not to exceed \$35,000. Address Forsyth County Commissioners at Winston-Salem or Davie County Commissioners at Mocksville, N. C.

Okl., McAlester.—Pittsburg county will construct bridge at Longtown; engineers are making surveys and will prepare plans and specifications; submit estimates of steel, wood and concrete construction. Address County Commissioners.

S. C., Anderson.—Blue Ridge Railway, J. R. Anderson, superintendent, will construct concrete arch over tracks at Main St. (See "Railway Stations, Sheds, etc.")

Tex., Fort Worth.—Tarrant County Commissioners' Court, J. A. Mulholland, County

Auditor, will erect bridge at 12th St. in North Fort Worth; will use 162-foot span of old N. Main St. bridge over river channel and either reinforced concrete girder spans 30 feet long from end of span to each levee, or by using steel girder of old Main St. bridge, making 18-foot spans built on concrete piers; to have 20-foot roadway with 7-foot sidewalk on each side; concrete floor; carrying capacity of 20-ton roller; bids received until March 4. (See "Machinery Wanted.")

Va., Norfolk.—Dismal Swamp Railroad Co., G. P. Lewis, engineer, Box 815, will erect three steel (lift type) sub and superstructures, 1200-foot pile trestle and 1000-foot pile bulkhead; arrange for 50,000 cubic yards suction dredging and other work; information obtainable at 420 Law Bldg., Norfolk; recently noted as contemplating above work. (See "Machinery Wanted.")

W. Va., Lumberport.—Harrison County Commissioners, Clarksburg, W. Va.; Baltimore & Ohio Railroad (F. L. Stuart, chief engineer, Baltimore, Md.) and Monongahela Valley Traction Co. will construct bridge across river connecting Lumberport and Haywood; length 530 feet; width 24 feet; 84 feet above water; cost about \$32,000; bids received until March 17.

W. Va., New Martinsville.—Pennsylvania Railroad, W. C. Cushing, chief engineer maintenance of way, Pittsburgh, Pa., is reported as planning to construct bridge across Ohio River between New Martinsville and Duffy, Ohio.

CANNING AND PACKING PLANTS

La., Norwood.—Norwood Canning Plant, capital stock \$15,000, organized to establish cannery; minimum daily capacity 10,000 cans and maximum capacity 20,000; at first can sweet potatoes, tomatoes and blackberries; later can peas, corn and other vegetables.

PROPOSAL ADVERTISEMENTS IN THIS ISSUE ARE PUBLISHED ON PAGE 90 and 91

In order to secure best bids from leading engineers, contractors and investment houses, the proposal advertising columns of the Manufacturers Record are invaluable.

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tables; L. W. Blount, general manager, State Line, Miss.

Md., Bozman.—Sherwood Canning Co. will be name of company recently noted to be established by R. S. Harrison and M. G. Jarboe, Sherwood, Md.; erect 40x90-foot galvanized metal \$1000 building; install equipment for daily capacity of 12,000 cans tomatoes. (See "Machinery Wanted.")

Md., Oxford.—Kirby & Gallup of Llandall Station (P. O. at Easton, Md.) contemplate, it is reported, building cannery.

N. C., New London.—W. M. Ivey and associates are organizing company to establish cannery. (See "Machinery Wanted.")

Tex., Yorktown.—J. M. Stuks of San Antonio, Tex., and associates organized company to establish canning and pickling plant.

Va., Fredericksburg.—Henry Warden will, it is reported, establish cannery, etc.

Va., Hampton.—Associated Crab Co. purchased William Evans' plant and will can crabs; daily capacity, 300 to 1000 cans; H. P. Grandy, president; Alfred Forest, secretary; H. E. Mills, treasurer; William Evans, Manager. (Recently noted incorporated with \$15,000 capital stock.)

Va., Lawyers.—Wood Bros. purchased 200-acre farm and contemplate building cannery.

Va., Tazewell.—John D. Peery, C. H. Peery, S. S. F. Harman and others organized company to build packing plant; storage facilities.

CLAYWORKING PLANTS

Ark., Camden.—Pottery.—Dr. George Kimball and associates plan \$1,000,000 company to build pottery, etc. (See "Coal Mines and Coke Ovens.")

Mo., St. Louis.—Chalk and Clay.—St. Louis

Chalk & Clay Co., 406 Fullerton Bldg., 122 N. 7th St. (recently noted incorporated, \$2000 capital stock), elected Julius Koenig president and A. C. Fitze vice-president, James Walsh secretary-treasurer; states above is simply preliminary organization.

N. C., Hendersonville.—Bricks.—J. C. Sherrill Company, capital stock \$50,000, incorporated by J. C. Sherrill, Madge L. Sherrill, D. S. Pace and A. A. Pace.

Tex., Houston.—Clay Products.—Vandaveer Clay Products Co., capital stock \$30,000, incorporated by H. C. Vandaveer, Jannings Vandaveer and A. P. Green.

Tex., San Angelo.—Bricks.—Concho Brick Co. (recently noted incorporated, \$25,000 capital stock) succeeds San Angelo Brick Manufacturing Co., also lately mentioned; no new machinery or buildings; other changes by company force.

Va., Richmond.—Bricks.—J. L. Taliaferro, 211 N. 29th St., will develop clay deposit for brick manufactory; contemplates 50,000 output. (See "Machinery Wanted.")

W. Va., Martinsburg.—Pavers, Tile, etc.—F. Vernon Aler reports he has arranged with Philadelphia and Baltimore capitalists for incorporation of company to build plant for manufacturing pavers (100,000 daily), building brick, hollow block, sewer pipe, tile, etc.; 90 acres land, buildings, machinery, etc., to cost about \$200,000.

COAL MINES AND COKE OVENS

Ala., Holt.—Smet-Solvay Company, Syracuse, N. Y., will build 20 additional ovens; increase in plant, 50 per cent., making daily coal capacity 650 tons. It is understood construction has begun on this enlargement.

Ark., Camden.—Dr. George Kimball and J. E. Newton plan organization of \$1,000,000 corporation to develop coal and clay property

W. Va., Morgantown.—H. T. McFarland of Dunbar, Pa., and William F. Brickman of Connelville, Pa., purchased coal mines and will develop.

W. Va., Seng.—D. C. Thomas Coal Co., 8 E. Broad St., Columbus, O., will develop about 1000 acres of coal property; daily output undetermined; D. C. Thomas, president and manager, Seng; J. W. Blower, vice-president and treasurer; E. B. Graham, secretary; both of Columbus, O. (Recently noted incorporated with \$50,000 capital stock.)

W. Va., Wheeling.—Warwood Coal Co., J. C. McKinley, president (recently noted incorporated), is holding company.

CONCRETE AND CEMENT PLANTS

N. C., Salisbury.—Concrete Blocks, etc.—Chambersburg (Pa.) party contemplates establishment of concrete block and brick plant; information furnished by Jas. H. Warburton, secretary Salisbury Industrial Club. (See "Machinery Wanted.")

Md., Oakland.—H. W. Kahl & Sons are arranging to build plant; 40x100 feet; portion to be two stories and portion one story; concrete blocks; double wall. (Recently mentioned.)

W. Va., Huntington.—Huntington Concrete Block, Brick & Mortar Co., capital stock \$10,000, will be incorporated by J. W. Dickey, L. W. Dickey and G. T. Wilson.

COTTON COMPRESSES AND GINS

Ala., Attalla.—C. H. Crump, assistant treasurer of Attalla Compress & Storage Co., advises that company will build and equip cotton gin, to be electrically operated, for next fall crop. (Recently incorrectly noted to build "compress.")

Ga., Columbus.—Atlantic Compress Co. will rebuild cotton compress recently reported burned at estimated loss of \$813,120.

Tenn., Alamo.—Planters' Gin Co., capital stock \$5000, incorporated by G. W. Sudberry, R. W. Riggins, B. F. Sudberry and others.

Tex., Brownsville.—People's Ice & Manufacturing Co., P. E. Blalock, president, will erect 30x100-foot ironclad building; construction by company; has purchased machinery; four 70-saw gins stands complete.

Tex., Houston.—Houston Cotton Terminal & Warehouse Co., authorized capital \$1,000,000, planned for organization to build cotton compresses, warehouses, etc.; concrete fire-proof construction, with sprinkler system; proposes to buy 240-acre site on ship channel; plans contemplate buyers' sheds for more than 60,000 bales, compress capacity of 6250 bales per 10 hours, warehousing for flat cotton on head of 100,000 bales, and warehousing for 100,000 bales compressed cotton; build in units; estimated cost \$1,500,000; preliminary organization and plans in charge of W. B. Chew, J. S. Rice, W. C. Munn, C. G. Pilot, Daniel Ripley and others. (Mentioned March 4.)

Tex., McLean.—P. O. at Marlin.—McClanahan Gin Co., incorporated by M. M. Allen, Frank Barton and J. H. Hunter.

Tex., Santa Maria.—People's Ice & Manufacturing Co., P. E. Blalock, president, Brownsville, Tex., will erect cotton gin; 30x100 feet; ironclad; construction by company; machinery purchased.

Tex., Sweet Home.—Farmers Gin & Mill Co. (recently noted organized), W. B. Ebner, president, and J. M. Valenta, secretary-treasurer, will erect building costing about \$8000; building proposals opened March 3; install machinery, estimated cost \$6000, for capacity 75 bales daily. (See "Machinery Wanted.")

COTTONSEED-OIL MILLS

Tex., Jefferson.—Company organized with \$50,000 capital stock to establish cottonseed oil mill; Progressive League is interested.

Va., Reedville.—Reedville Oil & Guano Co., capital stock \$100,000, incorporated; J. G. Haynie, president; William Blundon, vice-president; W. B. Crowther, secretary-treasurer.

DRAINAGE AND IRRIGATION

Fla., Miami.—Everglade Land Sales Co., H. Dale Miller, vice-president, Dorn Bldg., will construct about three miles drainage canal; about 67,000 cubic yards earth and 1500 yards rock removal; two canals, each approximately 1½ miles, traversing "Davi

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

farm"; W. J. Kackley, engineer; previously noted. (See "Machinery Wanted.")

Tenn., Huntington.—F. Ray Moomaw is chairman of committee interested in formation of drainage district to reclaim 30,000 to 40,000 acres of land in Carroll county along Crooked Creek, Beaver Creek and Ohio River; arrangements for preliminary surveys, etc., are now being made.

Tex., Donna.—Drainage Commissioners Hidalgo County Drainage District No. 1, George B. Merriweather, chairman, will grub and clear right of way about 500 feet wide, being 37.9 miles and containing 2310 acres of land in sections 1, 2, 3, 4, 5, 7 and 8; bids received until March 26; also excavate 67,000 cubic yards of dirt, erecting bridge and grubbing and clearing about 117 acres of land in a strip 500 feet wide and 1.9 miles for drainage purposes in section 6. (See "Machinery Wanted.")

ELECTRIC PLANTS

Ala., Hartsboro.—City voted bond issue to construct electric-light plant, water-works and sewer system; total estimated cost, \$100,000. Address The Mayor. (Recently mentioned.)

Ark., Sulphur Springs.—City will construct electric-light plant and water-works previously noted to cost \$35,000; plans, etc., with Improvement Board, C. J. Williams, chairman, and at office of engineer, A. C. Moore, Independent Bldg., Joplin, Mo.; bids received until March 20. (See "Water-works" and "Machinery Wanted.")

Ark., Camden.—Camden Power Co., E. T. Reynolds, manager, plans erecting building, construct feeder lines and remodeling all lines throughout city; is reported as to purchase following equipment: 100-horse-power boiler, steel casings, 56 inch by 100 foot stack, 300 K. V. A. alternating current generator and engine directly connected, three pumps directly connected to alternating current motors, switchboard panel, complete with instruments, for 300 K. V. A. generator; 70 35-foot poles with 7-inch tops, 100 30-foot poles with 6-inch tops, and 2000 pounds No. 60 weather-proof wire and insulators; purchased property of Camden Water Co.; plans to rebuild water plant and remove power plant to property of water company.

Ark., Hot Springs.—Federal Light & Traction Co., 60 Broadway, New York, has taken over public utilities of Hot Springs Water Co., including electric, railway and water plants, acquiring control from S. W. Fordey and Chas. H. McKee of Little Rock, Ark.; will improve and continue plants, these to be operated by Central Arkansas Railway & Light Corporation; latter lately reported chartered with \$10,500,000 capital stock and Wm. L. McKee, 1449 President St., Brooklyn, N. Y., president.

Ark., Hot Springs.—Citizens' Electric Co., capital stock \$500,000, incorporated; S. W. Reyburn, president; Harry H. Trieber, secretary; C. P. Perrie, treasurer, all of Little Rock, Ark.

Fla., St. Petersburg.—St. Petersburg Electric Light & Power Co., H. C. Case, general superintendent, advises will open bids March 10 for recently described plant on A. C. L. R. R.; cost \$160,000 to \$150,000; develop 2000 horse-power; install complete power-house equipment; R. E. Ludwig, St. Petersburg, engineer in charge. (See "Machinery Wanted.")

Fla., Tampa.—Tampa Electric Co. has completed plans for improvements to cost about \$400,000; erect addition to power plant and install single-unit turbine of 4000 kilowatts capacity, with necessary boilers, condensers, auxiliary pumps and electric switchboard; increase capacity of present station 125 per cent.; ordered equipment; will also extend lines and erect two-story office building, 80x55 feet, costing \$40,000; engineers and contractors, Stone & Webster Engineering Corporation, 147 Milk St., Boston, Mass. (Recently reported to have increased capital stock from \$1,570,000 to \$2,244,000, to improve plant and to consolidate with Tampa & Sulphur Springs Traction Co.)

Ga., Homerville.—L. H. Locklier contemplates building electric-light and ice plant. (See "Machinery Wanted.")

Ga., Rochelle.—City engaged J. B. McCrary Company, Atlanta, Ga., to make surveys and estimate cost of electric-light plant and water-works; W. C. Carter, Clerk. (Recently noted as to vote on construction of electric-light plant and water-works.)

Ga., Savannah.—Fairhope Land Co., A. B. Offenbacher, general manager, Savannah Bank & Trust Co. Bldg., plans to install electric-light plant. (See "Land Developments.")

Ky., Hazard.—W. E. and N. G. Hemphill

of Clinton, Tenn., will build electric-light and power plant; install 24-horse-power dynamo.

Ky., Winchester.—Clark County Fiscal Court will grant franchise for electric-light system; J. H. Evans, County Judge, will, at 3.30 P. M. March 7, at courtroom in courthouse, Winchester, offer franchise for sale at public outcry.

Mo., Arcadia.—City voted \$8000 bond issue to build electric-light plant.

Mo., Joplin.—City will erect addition to electric-light plant to develop 500 horse-power; C. B. Anderson of Joplin, engineer in charge; cost \$50,000. (Recently noted as to vote March 11 on \$60,000 bond issue to double capacity of plant.)

N. C., Clayton.—City awarded contract to Tucker & Laxton, Charlotte, N. C., for construction of electric-light plant recently noted; Gilbert C. White, consulting engineer, Charlotte, N. C. (See "Water-Works.")

N. C., Conover.—Conover Light & Power Co. organized with \$3000 to \$5000 capital stock; will build three miles of electrical transmission line, extending from Southern Power Co.'s (Charlotte, N. C.) line into Conover and vicinity; as recently stated, will contract with latter company for power. (See "Machinery Wanted.")

N. C., Mebane.—City granted 50-year franchise for power and lights to Piedmont Electric Co. through its attorney, E. S. Parker, Jr., of Graham, N. C.

N. C., Spencer.—City has authority of Legislature to vote on \$50,000 bond issue for electric-light plant and water-works. Address The Mayor. (See "Water-works.")

Okla., Purcell.—City awarded contract to J. W. Kennedy at \$23,974 to rehabilitate electric-light plant and water-works. (Recently reported to have purchased Purcell Light, water and ice plants.)

S. C., Camden.—Carolina Public Service Co., Raleigh, N. C., leased plants of Camden Water, Light & Ice Co. (See "Ice and Cold-storage Plants.")

Tex., Brownwood.—Texas Light & Power Co. will install machinery and make other improvements to light plant; reported to triple capacity; expenditure \$70,000. (Previously reported to have acquired electric-light, power and gas properties of Brownwood Gas & Electric Co.)

Tex., Dallas.—City votes April 1 on \$100,000 bond issue to install electric-light plant. Address The Mayor.

Tex., Flatonia.—C. E. Pierson of Axtell, Neb., purchased Flatonia electric, ice, and water plants; will improve.

Va., Clarksville.—Eagle Point Power Co., capital stock \$50,000, incorporated; W. T. Wimbish, president; L. W. Wimbish, vice-president; H. M. Wimbish, secretary-treasurer.

Va., Dorchester.—New York Mining & Manufacturing Co., 143 Liberty St., New York, advises further relative to recently-described power-house: Stone and concrete building, 50x100 feet, cost within \$14,000; machinery includes turbo-generator set, 1000 K. W. capacity; condenser and cooling tower, and vertical water tube boilers of 1000 horse-power; and construction and material contracts let.

FERTILIZER FACTORIES

Md., Snow Hill.—Worcester Fertilizer Co., capital stock \$25,000, incorporated with Montgomery Staggs, president, Indiantown, Va.; E. H. Forks, vice-president; D. Frank Forks, manager.

N. C., Raeford.—Hoke Oil & Fertilizer Co., capital stock \$100,000, incorporated by J. C. Thomas, J. W. Johnson, T. B. Upchurch, J. H. Austin and others.

FLOUR, FEED AND MEAL MILLS

La., Lake Charles.—Lake Charles Grain Co. will erect galvanized-iron building and install machinery to manufacture chops, meal and mixed feed. (See "Miscellaneous Enterprises.")

N. C., Salisbury.—B. S. Brown is promoting organization of company with \$10,000 capital stock to build roller mill.

Tenn., Clarksville.—Reeves & Fly Co., capital stock \$50,000, incorporated by J. H. Reeves, J. O. Fly, T. J. Rooney and others.

Tex., Dallas.—New Century Milling Co. will it is reported, erect mill on site having frontage of 200 feet on Cadiz St. and 400 feet along Gulf, Colorado & Santa Fe Railway.

FOUNDRY AND MACHINE PLANTS

Ga., Tifton.—Harrows.—Tifton Foundry & Machine Co. will add equipment to manufacture harrows. (See "Machinery Wanted.")

La., New Orleans.—Iron.—Johnson Iron Works, Ltd., will build plant in Algiers; brick; install additional equipment; present capacity of present plant; estimated cost \$30,000.

Mo., Kansas City.—Stoves.—Hoover Stove Repair Co., capital stock \$15,000, incorporated by Charles R. Hoover, P. H. Wagner and Samuel Eppstein.

Mo., Carthage.—Machinery.—Standard Machine Manufacturing Co. increased capital stock from \$30,000 to \$60,000; erect and equip building 50x150 feet, probably of brick construction; double capacity of plant.

Mo., Kansas City.—Machinery.—Office Machinery Co., capital stock \$25,000, incorporated by W. C. Johnson, Arthur B. Clark and Elmer N. Howell.

Mo., St. Louis.—Elevators.—St. Louis and Memphis syndicate; represented by S. W. Jurden of First National Bank of Wellston, Mo., purchased interest in William A. Miller Elevator Manufacturing Co.; new owners plan improvements to plant at 9th and Victor Sts.

Mo., Wellston.—Steel.—St. Louis Steel Foundry Co., capital stock \$2000, incorporated by J. H. C. F. and E. H. Steedman, Walter C. Hecker and others.

Tenn., Lewisburg.—Stoves, etc.—Lewisburg Foundry Co., S. T. Hardison, president, will open proposals before April 1 on erection of 70x150-foot foundry and 50x250-foot factory of mill construction; secured machinery to manufacture cook stoves, cast and steel ranges, heaters, etc. (Recently noted organized; \$50,000 capital stock.)

Tex., Denison.—Safes, etc.—W. D. Collins Safe & Fixture Co. plans to erect building. (See "Woodworking Plants.")

Va., Petersburg.—Machinery.—Gresham & Co., capital stock \$10,000, incorporated; S. R. Gresham, president; P. V. Gresham, secretary-treasurer.

Va., Lynchburg.—Hulard Foundry and Machine Works will make repairs to building reported damaged.

GAS AND OIL ENTERPRISES

Ark., Hot Springs.—Consumers' Gas Co., capital stock \$200,000, incorporated; S. W. Reyburn, president; Harry H. Trieber, secretary; C. P. Perrie, treasurer; all of Little Rock, Ark.

Ga., Decatur.—Gas Plant.—DeKalb County Civic Service Co., 132 S. 15th St., Philadelphia, Pa., will manufacture gas and by-products; definite plans not complete; further information obtainable from A. L. Osgood, 132 S. 15th St., Philadelphia, Pa. (Recently noted incorporated by Mr. Osgood and others, etc.)

Ky., Covington.—Company incorporated by James C. Ernst of Covington, W. W. Cartwright of Cincinnati, O., and Matt Herold of Bellevue, O.; to drill for gas and oil.

La., Jennings.—Martel Syndicate, capital stock \$10,000, incorporated; J. Gabriel Martel, president; Mrs. Emma Pecot Martel, vice-president; Joseph Block, secretary-treasurer.

La., Jennings.—G. B. Zigler Company, capital stock \$25,000, organized with G. B. Zigler president, W. A. Rowson vice-president, N. S. Whisenant secretary-treasurer.

La., New Orleans.—Pan-American Oil & Development Co., capital stock \$25,000, organized to develop oil wells; W. A. Kernaghan, president; George P. Thompson, vice-president; N. P. Knight, secretary-treasurer.

Okla., Arapaho.—Custer County Development Co., capital stock \$10,000, incorporated by Tom F. Power, F. Fred Burlingame, Fred B. Gallion and others.

Okla., Cleo.—Jones Oil & Gas Co., capital \$1000, incorporated by W. E. Oxley, P. E. Hughey, Ed Barber and others.

Okla., Cushing.—Pipe Line.—Magnolia Petroleum Co. of Texas (main office Galveston, Tex.) contemplates constructing additional pipe line to provide outlet for Oklahoma oil to Gulf of Mexico; reports state route will average 211 to 230 miles by railroad; understood that line will extend in southwesterly direction from Oklahoma City, passing through various counties, including Payne, Lincoln, Oklahoma and Cleveland, probably connecting with present eight-inch line at or near Alvord, Tex.; estimated cost \$1,500,000 to \$2,000,000.

Okla., Cherokee.—Alfalfa County Oil & Gas Co., incorporated by L. R. Smith, J. F. Henderson, J. D. Butts, Ira A. Hill, J. H. Chowning and others.

Okla., Cleveland.—Tenn-Ok Oil, Gas & Mineral Co., capital stock \$100,000, incorporated by J. L. Miller, George Broteuall, C. B. Wheeler and others.

Okla., Dewey.—City voted to grant gas franchise to Joe Bartles.

Okla., Muskogee.—D. B. & N. Oil Co., capital stock \$5000, incorporated by L. G. Disney, A. S. Nelson and R. R. Brader.

Okla., Muskogee.—Muskogee Red Run Oil Co., capital stock \$5000, incorporated by S. B. Locke, W. M. Canterbury, T. E. Harbour and others.

Okla., Oklahoma City.—Sue Oil & Gas Co., capital stock \$10,000, incorporated by George E. Black, Oliver C. Black, Ralph W. Day and O. S. Kelly.

Okla., Oklahoma City.—Fulwiler Oil & Gas Co., capital stock \$10,000, incorporated by B. L. Schlesinger, W. A. Fulwiler and J. R. True.

Okla., Oklahoma City.—American National Oil Co., capital stock \$10,000, incorporated by Al G. Patterson, George J. Line and C. H. Daniels.

Okla., Okmulgee.—Okmulgee Petroleum Co., capital stock \$60,000, incorporated by W. B. Pine, G. S. Pine and C. E. Bearse.

Okla., Pauls Valley.—Pauls Valley Oil & Gas Corporation, capital stock \$20,000, incorporated; P. N. Kerr, president; J. T. Jones, vice-president; E. P. Duffy, secretary-treasurer; offices in Shreveport, La.

Okla., Shawnee.—Potawatomi County Oil & Development Co., capital stock \$10,000, incorporated by Joe A. Harbart, Carl Mahrbacher and A. E. Anderson.

Okla., Tulsa.—Log Cabin Oil Co., capital stock \$120,000, incorporated by John Croft, Frank Sowers, M. Q. Chase and others.

Okla., Tulsa.—Rogers County Drilling Co., capital stock \$2500, incorporated by A. R. Thomas, E. V. Bedford, W. P. Tucker and N. B. Dannenberg.

Okla., Tulsa.—Monte Cristo Oil Co., capital stock \$10,000, incorporated by T. O. Cremin, James Cremin and L. J. Martin.

Okla., Tulsa.—Ferdinand Oil Co., capital stock \$10,000, incorporated by L. A. Rowland, J. D. Talbott and Peter O. Nyce.

Okla., Tulsa.—Hampshire Oil & Gas Co., capital stock \$100,000, incorporated by Mark E. Carr, C. B. Reiney and G. Barringer.

Okla., Tulsa.—Motor Oil & Gas Co., capital stock \$10,000, incorporated by J. W. Hoeker, Los Angeles, Cal.; John Rose, Jackson, Tenn., and C. S. Walker, Tulsa.

Okla., Tulsa.—Hawkins Oil & Gas Co., capital stock \$5000, incorporated by W. J. Flescher, Tulsa; Ira E. Cornelius, Sapulpa, Okla., and A. J. Camsack, Shawnee, Okla.

Tex., Beeville.—Sinton Gas & Oil Co. capital stock \$1200, incorporated by J. C. Dougherty, J. S. Hall and J. C. Wood.

Tex., Sour Lake.—Hudson Oil Co., capital stock \$4000, incorporated by S. M. George, T. S. Crosbie, K. Stone and others.

Va., Highland Park, P. O. at Richmond.—Gas.—Town Council will consider granting franchise for gas system.

W. Va., Charleston.—Tiselwah Improvement Co., capital stock \$5000, incorporated by Elizabeth L. Cobb, D. L. Salisbury, May Kegley and others.

W. Va., Charleston.—Summers Oil & Gas Co., capital stock \$50,000, incorporated by J. D. Pribble, Frank H. Porter, D. W. Goshorn and others.

W. Va., Charleston.—Grosscup-Rummell-Schwabe Co., capital stock \$100,000, incorporated by E. W. Alexander, A. B. Collier, Conner Hall and others; offices in Alderson, Stephenson Bldg.

W. Va., Clarksburg.—Demo Oil & Gas Co., capital stock \$25,000, incorporated by W. Caston, C. F. Arnett, C. R. Ogden and others.

W. Va., Fairmont.—Clay-Roane Oil Co., capital stock \$25,000, incorporated by T. W. Hall, J. B. Rose, S. E. Miller and others.

W. Va., Huntington.—Troublesome Creek Oil Co., 422 9th St. (recently noted incorporated, \$50,000 capital stock), has purchased about 10,000 acres oil and gas territory in West Virginia and Eastern Kentucky; will open drilling and machinery bids about July 15; R. M. Wylie, president; J. W. Valentine, vice-president; A. B. Brode, secretary-treasurer. (See "Machinery Wanted.")

W. Va., Shinnston.—Tower Oil & Gas Co., capital stock \$15,000, incorporated by W. F. Booth, H. P. Boone, Paul E. Tetrick and others.

ICE AND COLD-STORAGE PLANTS

Ga., Homerville.—L. H. Locklier contemplates building ice and electric-light plant. (See "Machinery Wanted.")

Ga., Savannah.—Fairhope Land Co., A. B. Offenbacher, general manager, Savannah Bank & Trust Co. Bldg., plans to install ice plant. (See "Land Developments.")

La., Homer.—Homer Ice & Fuel Co., capital stock \$15,000, incorporated; Hugh Taylor, president; C. O. Ferguson, vice-president; H. C. Walker, secretary-treasurer; N. L. Harmon, manager; establish recently-noted ice plant; 10 tons capacity; open proposals about March 10 for erection of \$1800 40x60-foot ordinary construction building; now receiving machinery bids. (See "Machinery Wanted.")

La., New Orleans.—Washington Ice Co. will erect two-story brick addition to plant; awarded contract to Charles Kehl of New Orleans.

Mo., St. Louis.—St. Louis Independent Packing Co. will build cold-storage plant, 112x172 feet, on Chouteau Ave.; cost \$150,000.

Mo., St. Louis.—Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill., contemplates building fruit depot; second floor to be equipped as cold-storage plant, with probable capacity of 750 carloads fruit. (See "Warehouses.")

N. C., Rutherfordton.—Carpenter, Taylor & Co. are installing machinery for 10-ton ice plant; operation by April 1. (See "Machinery Wanted.")

S. C., Camden.—Carolina Public Service Co., Raleigh, N. C., leased plants of Camden Water, Light & Ice Co.; will improve ice plant and operate.

Tenn., Chattanooga.—J. P. Lupton and Z. C. Patton will erect warehouse and cold-storage building for Chattanooga Warehouse & Cold Storage Co.; cost \$75,000 to \$100,000. (See "Warehouses.")

Tex., Brownsville.—People's Ice & Manufacturing Co. (recently noted increasing capital stock to \$150,000) will erect cotton gin. (See "Cotton Compresses and Gins.")

Tex., Flatonia.—C. E. Pierson of Axtell, Neb., purchased Flatonia ice, electric and water plants; will improve.

Va., Charlottesville.—Yancey Ice Co. will rebuild plant reported damaged; machinery not damaged; daily capacity 15 tons of ice.

IRON AND STEEL PLANTS

Tex., Rusk.—Iron Foundry, etc.—Ben E. Cabell, chairman Prison Commission, Huntsville, Tex., writes to Manufacturers Record: "Prison system leased iron furnace and pipe foundry to O'Neal, Barranger and King; J. J. King lives at Texarkana, Tex.; H. A. O'Neal at Linden, Tex.; agreement is they will operate furnace and foundry; begin operations not later than October 1; 100-ton-capacity furnace; these parties also bought iron properties in Cass, Marion and other counties."

LAND DEVELOPMENTS

Ala., Birmingham.—Drennen Improvement Co., capital stock \$25,000, incorporated; D. M. Drennen, president-treasurer; F. M. Drennen, vice-president; John R. McPherson, secretary-treasurer.

Ala., Mobile.—Alabama-Florida Development Co., capital stock \$3000, incorporated by V. H. Marshall, Sr., president; V. H. Marshall, Jr., vice-president; B. F. Marshall, secretary-treasurer.

Ark., Ashdown.—Bog Springs Co., W. L. Shirey, president, organized with \$30,000 capital stock to develop 157 acres of land as resort; improvements will include erection of hotel, bathhouses, sanitarium, complete water-works, electric light and sewerage system; cost \$20,000; date of opening construction proposals not determined; plans by Witt & Selbert, Texarkana, Ark.; recently noted under "Hotels," "Water-works," etc. (See "Machinery Wanted.")

Ark., Little Rock.—Arkansas Colonizing Co., Bank of Commerce Bldg., advises will develop 12,000 acres recently noted purchased as farm lands and in lignite mining; plans not fully decided. Miss Roze E. Bennett, president; R. M. Foster, Jr., vice-president; J. Ewell Black, secretary-treasurer. (See "Machinery Wanted.")

Ark., Pangburn.—Pangburn Fruit Co., capital stock \$5000, incorporated by E. A. Skillern, Harry Churchill, O. B. Henderson and others.

Fla., Miami.—Carl G. Fisher (president of Prestolite Company, Indianapolis, Ind.) wires Manufacturers Record from Miami that he plans to reclaim about two miles water front, with 12 to 15 feet clear sand available; work will involve 1,000,000 yards sand filling within next four months; wants names and addresses of large dredging companies in vicinity of Miami prepared to figure on work. Mr. Fisher was reported in January as having purchased for development 200 acres fronting 1800 feet on Atlantic Ocean and 1800 on Biscayne Bay. (See "Machinery Wanted.")

Ga., Savannah.—Fairhope Land Co., A. B. Offenbacher, general manager, Savannah Bank & Trust Co. Bldg., is arranging for development of industrial center, to be known as Fairhope, in McIntosh county, on Sapelo River, 50 miles from Savannah; purchased 8000 acres land and has surveyed 3000 lots; install electric-light and ice plants; build and equip sawmill; construct telephone system; build 54-room hotel, cottage system of schoolhouses, residences and railroad station; lay 2½ miles of track to connect with various railroads.

La., Lake Charles.—Calcasieu Development Corporation, capitalization \$1,500,000, incorporated by Charles S. Kelsey, George H. Rogers, Arthur W. Herriek and associates; to develop and promote development of Louisiana resources; company wires Manufacturers Record: "Charter filed; no details at present."

Miss., Waynesboro.—Pennsylvania syndicate purchased from R. P. Cook Real Estate Agency 12,600 acres cut-over land owned by Hiwannee Lumber Co.; purchase price \$73,000; new owners expect to colonize property.

Mo., Grant City.—Grant City Improvement Co., capital stock \$10,000, incorporated by James T. Marre, C. B. Dubois, Bert Miller and Edward Kelso.

N. C., Mount Airy.—Gold Medal Orchard Co., 121 Main St., capital stock \$25,000, incorporated; J. M. Hill, president; A. V. West, secretary-treasurer; will develop 102 acres at present; 45 acres now in fruit trees; will clear and plant balance by January 1; erect additional needed buildings, etc. (See "Machinery Wanted.")

S. C., Charleston.—Dorchester Development Co., capital stock \$5000, incorporated; F. L. Parker, Jr., president; James Adger, vice-president; C. D. Gadsden, secretary-treasurer.

Tenn., Memphis.—Parkway Land Co., capital stock \$200,000, incorporated by Lee Horn, Harry Horn, E. M. Richardson and others.

Tenn., Nashville.—Belmont Realty Co., W. W. Crandall, president, 804 Trust National Bank Bldg., incorporated with \$100,000 capital stock, purchased 180 acres of land, half improved; will subdivide and make further improvements; construction bids opened March 1; engineer not selected. (Recently reported as having capital stock of \$200,000.)

Tex., Brenham.—Frank W. Wood will develop suburb to be known as Woodlawn Heights; will divide property into lots, erect cottages, build concrete sidewalks, construct sewerage and electric-light systems, etc.

Tex., Cuero.—Whitsett Town Co., capital stock \$14,000, incorporated by Walter Reifert, William Froese, Paul Dornbluth and others.

Tex., Dallas.—City will vote in April on \$500,000 bond issue for park purposes. Address The Mayor.

Tex., Dallas.—City votes April 1 on \$500,000 bond issue for parks and playgrounds. Address The Mayor.

Tex., El Paso.—Union Land & Cattle Co., capital stock \$150,000, incorporated by J. G. D. Boyd, L. E. Booker and L. F. C. Boyd.

Tex., Houston.—German-American Land Co., capital stock \$5000, incorporated by W. J. French, A. E. Smith and J. E. Fowler.

Tex., Houston.—German-American Land Co., capital stock \$5000, incorporated by W. J. French, A. E. Smith and J. E. Fowler.

Tex., San Benito.—Texas-California Grape & Pecan Co. will develop 555 acres for grape and pecan growing; plans complete system of ditches and irrigation system; fence and plant to each acre 400 standard varieties of grapes and 18 fanny paper-shell pecan trees, etc.; B. H. Frazier, president; E. B. Fletcher, vice-president; L. J. Rossiter, secretary; C. H. Martin, treasurer. (Recently noted incorporated.)

Tex., Yorktown.—De Will County Land & Cattle Co., capital stock \$121,000, incorporated by C. L. Strieber, Louis Strieber and William Metz.

Va., Richmond.—Bay View Realty Co., capital stock \$150,000, incorporated; William B. Walsh, president; W. E. Kelley, vice-president; William L. Glenn, secretary-treasurer.

Va., Richmond.—Idlewood Park Land Corporation, capital stock \$50,000, chartered; H. K. Franklin, president; Field Wilbon, vice-president; William B. Pizzini, secretary-treasurer.

W. Va., Old Fields.—Chert Mountain Orchards, E. A. Leatherman, manager, Twin Mountain, W. Va., will develop, in apples and peaches, 1000 acres of chert fruit land in West Virginia; balance of 2970-acre tract purchased by Mr. Leatherman will be sold in tracts for development.

LUMBER MANUFACTURING

Ala., Birmingham.—Ensley Lumber Co., capital stock \$10,000, incorporated; L. R. Vines, president-treasurer; Mrs. Maud Vines, vice-president; W. J. Kelley, secretary.

Ala., Valley Head.—D. W. Atcheson Lumber Co., Chattanooga, Tenn., incorporated; \$10,000 capital stock; A. P. Conklin, president; D. W. Atcheson, secretary, treasurer and manager; will open proposals March 1 for erection of 40x60-foot \$600 building; install machinery costing \$2500; daily capacity, 20,000 feet dressed pine lumber.

Florida.—Burton & Schwartz of Burton, La., and J. C. Turner of J. C. Turner Lumber Co., 1123 Broadway, New York, are reported to have purchased about 100,000 acres Southern Florida cypress timber land for development; Burton & Schwartz wire Manufacturers Record: "Will not develop for some time."

Ga., Savannah.—Fairhope Land Co., A. B. Offenbacher, general manager, Savannah Bank & Trust Co. Bldg., plans to build sawmill to cut 20,000,000 feet of lumber. (See "Land Developments.")

Ga., Tallulah Falls.—Appalachian Apple Orchards, Candler Bldg., Atlanta, Ga., contemplates installation of band-saw mill with 15,000 to 25,000 feet daily capacity, near Tallulah Falls; manufacture poplar, oak and pine. (See "Machinery Wanted.")

La., Alexandria.—Louisiana Sawmill Co., capital stock \$600,000, organized with J. E. Crawford, president, Oklahoma City, Okla.; S. R. Lee of Alexandria, vice-president; B. H. Miller, secretary, Oklahoma City, Okla.; H. B. Crawford, treasurer, St. Louis, Mo.; will build sawmill; purchased timber land in southwestern portion of parish and will purchase 15,000 acres additional.

La., Alexandria.—Drumann & Robinson purchased, it is reported, 675 acres hardwood timber.

La., Alexandria.—Bayou Rapides Lumber Co., J. C. Gingras, president, will build sawmill and develop 8000-acre timber tract recently reported purchased.

La., Eunice.—Newell Lumber Co., C. H. Newell, president, Oklahoma City, Okla., advises has not completed plans for sawmill recently noted to be established at Eunice; reported capacity 80,000 feet; Frank L. Adams, manager.

La., Jennings.—Mentau Lumber Co. (recently reported incorporated with \$25,000 capital stock) will build hardwood mill with daily capacity of 20,000 feet; machinery purchased; J. S. St. Germain is secretary-treasurer-general manager.

Miss., Hattiesburg.—Foley-Pace Lumber Co., capital stock \$25,000, incorporated by George L. Pace, J. M. Foley and J. W. Pool.

Miss., Pike County.—J. W. Caraway of Tylertown, Miss., and L. S. Quin of Holmesville, Miss., purchased timber land reported to contain 12,000,000 feet of timber; reported purchase price \$60,000; will undertake development.

Miss., Starkville.—Attalla Lumber Co., capital stock \$40,000, incorporated by J. B. Perkins of Starkville, W. F. Clary and W. T. Pride of Memphis, Tenn., and D. W. Baird of Chicago, Ill.

N. C., Fayetteville.—Commonwealth Log & Timber Co., capital stock \$100,000, incorporated by J. Sprunt Newton, R. W. Herring and D. M. Hall.

N. C., Lexington.—Dr. E. J. Buchanan, H. B. Varner and J. G. Walser purchased 717-acre farm, of which 400 acres are timber land, principally pine and oak; they are reported as to cut timber and divide tract into small farms; purchasers advise that firm name at present is Buchanan, Varner & Dalser Lumber Plant; later will incorporate; cost of land \$22,000.

N. C., Oriental.—Farmers' Manufacturing Co., F. C. East, president, Norfolk, Va., secured three months' option on 30,000 acres timber land; proposes erecting barrel factory.

N. C., Newbern.—Swansboro Land & Lumber Co., Swansboro, N. C., contemplates building planing mill.

N. C., Stokesdale.—Stokesdale Lumber Co., capital stock \$10,000, incorporated by C. W. Tawlor, D. P. Lemmons, W. M. Vaughn and T. S. Coon.

N. C., Winston-Salem.—Smith-Phillips Lumber Co. will enlarge building-material manufacturing plant; purchased site on which to erect building 80x100 feet and several smaller structures; install machinery.

S. C., Florence.—Daniel Lumber Co., Darlington, S. C., states is only opening branch yard at Florence. (Recently noted as purchasing site, etc.)

S. C., Ferguson.—Santee River Cypress Lumber Co. has completed ground plans for previously-noted rebuilding, and has detail plans in progress; erect large planing mill, box shop and sheds; buildings to cover 350x400 feet; concrete floor and piers; balance, wood; will let contract, and invites contractors to correspond. (See "Machinery Wanted.")

S. C., Stokes.—Carolina Lumber Co., capital stock \$25,000, incorporated by C. F. Muckenfuss and L. V. Mims.

Tenn.-Va., Bristol.—Ryan Company, capital stock \$25,000, incorporated by P. F. Ryan, N. Ryan and John W. Price.

Tex., Aldridge.—Smith & Harrington will build circular sawmill at Kyle's Quarry, three miles from Aldridge; daily capacity 50,000 feet; will develop timber property.

Tex., Beaumont.—George W. Smith Lumber Co. increased capital stock from \$100,000 to \$200,000.

Tex., Beaumont.—Beaumont Shingle & Lumber Co. increased capital stock from \$30,000 to \$100,000.

Tex., Voth.—W. F. Ryder Lumber Co., capital stock \$100,000, will be incorporated; acquired Keith Lumber Co. and leased mill at Voth; will continue operating plant; W. F. Ryder will be president-general manager; J. Frank Keith, vice-president, and L. L. Ryder, secretary-treasurer and assistant manager, all of Houston, Tex.; W. F. Ryder will maintain office in Beaumont, Tex.; L. L. Ryder will be in charge of mill at Voth.

Va., Luray.—Bailey Bros. advise have purchased 640 acres of timber land eight miles from Luray, in Page county; contemplate development within next few months; plans not decided as to removal of timber; may not need additional machinery.

Va., Richmond.—Miller Manufacturing Co. will erect building on Maury St.; two stories; brick; 60x120 feet; mill construction; electric lighting; metal roof; cost \$9000; plans and construction by company.

Va., Richmond.—Lyndhurst Lumber Corporation, capital stock \$50,000, chartered; Thos. Gresham, president; C. Boice, vice-president; James Millen, secretary.

Va., Rosslyn.—Murphy & Ames, capital stock \$40,000, incorporated; T. B. Murphy, president; N. T. Ames, secretary-treasurer.

Va., Tazewell.—W. L. Dennis of Grundy, Va., purchased several hundred acres timber and coal land in Buchanan county.

W. Va., Elkins.—Presz-Hassinger Company, capital stock \$24,000, incorporated by J. O. Hassinger, Susie Hassinger, L. R. T. Presz, W. T. Davies and others to operate planing and sawmills.

W. Va., Kenova.—Preserved Tie Co., capital stock \$150,000, incorporated by Douglass W. Brown, Cary M. Davis and S. Irons of Huntington, W. Va., and others.

W. Va., Welch.—Tug Fork Planing Mill Co., capital stock \$25,000, incorporated by R. W. Branscombe, Oscar Bohm, Charles Wagner and others.

METAL-WORKING PLANTS

Fla., Jacksonville.—Shingles, Roofing, etc.—Florida Metal Products Co., C. P. Lovell, president, contemplates, it is reported, increasing capacity of plant.

Tex., El Paso.—Iron and Wire Work.—Southwestern Iron & Wire Works, 403 Texas St., incorporated, capital stock \$6000; takes over plant and business (partnership) of same name; manufactures ornamental iron and wire work; T. A. Shedd, president; M. C. Shedd, secretary.

MINING

Fla., Bradley Junction.—Phosphate.—State Phosphate Co. of Plant City, Fla., purchased phosphate land for \$115,000.

Ga., Rome.—Smith-Hughes Mining Co., capital stock \$15,000, incorporated by L. B. Smith, B. I. Hughes, Jr., Hughes T. Reynolds, J. E. Dean and others.

Ga., Sugar Valley.—Iron.—Sugar Valley Brown Ore Mining Co., 122 E. 7th St., Chattanooga, Tenn., capital stock \$100,000, organized with F. B. Martin, president-treasurer, and H. L. Davis, secretary, both of Chattanooga; J. R. Ryan, general manager; purchased 760 acres iron-ore property four miles from Sugar Valley; will build mining plant, construct railroad and undertake development; capacity 300 tons daily.

Md., Burtonsville.—Feldspar.—Earth Products Co., 6 S. Greene St., Baltimore, Md., will erect five-story mill 82 feet long and install 20-ton daily equipment; awarded building contract to George E. Weidman, Washington, D. C.; has also ordered machinery.

ery; will develop feldspar property; W. R. Bartgis, president; F. W. Day, vice president; H. H. Herbst, secretary-treasurer. (Previously reported incorporated with \$50,000 capital stock.)

Mo., Alba.—Davidson-Joplin Mines Co., capital stock \$250,000, incorporated by W. H. and Grace Davidson and P. F. Maher.

Mo., Carterville—Lead and Zinc.—Becker Mines Co., capital stock \$10,000, incorporated by B. T. Becker, Sadius Smith and Mary B. Becker.

Mo., Joplin—Lead and Zinc.—Producer Mining Co., capital stock \$30,000, incorporated by J. M. Mason, E. B. Wilcox, E. N. Cunningham and others.

Mo., Kansas City.—Bear Cat Mining Co., capital stock \$3000, incorporated by Frank E. Porter, W. G. Wren and J. S. Marley.

Okl., Blanco.—Blanco Prospecting & Mining Co. (recently noted incorporated with \$5000 capital stock) will develop 740 acres of mining property; Henry Godfrey, president; Columbus Taylor, vice-president; Peter Godfrey, treasurer; Freeman S. Anderson, secretary; R. M. Smith, manager. (See "Machinery Wanted.")

S. C., Columbia—Stone.—Weston & Brooker Quarry Co. increased capital stock from \$30,000 to \$150,000.

Tex., Cass County—Iron.—J. J. King of Texarkana, Tex.; H. A. O'Neal of Linden, Tex., and associates purchased and will develop iron-ore property in Cass and Marion counties. (See "Iron and Steel Plants.")

MISCELLANEOUS CONSTRUCTION

Fla., Pensacola—Wharves.—Board of Public Works, Louis deM. Clocks, chairman, will construct two wharves; bids received until March 21 by Adrian E. Langford, clerk; L. Earl Thornton, City Engineer. (See "Machinery Wanted.")

Fla., Tallahassee—Dredging.—Internal Improvement Fund of Florida, J. Stuart Lewis, secretary, will dredge from head of Halifax River, Fla., to Bay Biscayne, Fla.; bids received until March 20; information on application to office of Chief Drainage Engineer; F. C. Elliott, Acting Chief Drainage Engineer. (See "Machinery Wanted.")

Ga., Savannah—Heating Plant.—Union Station Co., J. R. Kenley, president, Wilmington, N. C., will install heating system at Union Station to cost about \$10,000; plans contemplate installation of larger boiler and laying of six-inch mains with four-inch supply pipes from furnace-room of station proper to each of nine tracks in train sheds.

Ky., Louisville—Canal.—Government will widen Portland and Louisville Canal; bids received until March 26; J. C. Oakes, Major, Engineers. (See "Machinery Wanted.")

Md., Baltimore—Coal Pier.—Baltimore & Ohio Railroad Co., F. L. Stuart, chief engineer, Baltimore and Charles Sts., contemplates constructing additional coal pier at Curtis Bay, additional terminal facilities at Baltimore, etc., out of proposed \$63,250,000 bonds, issuance of which is planned; plans include \$750,000 expenditure to improve Baltimore terminals, \$100,000 for power and lighting equipment at Baltimore terminals, \$85,000 for ventilating Mt. Airy tunnel, etc.

Md., Baltimore—Coal Pier.—Northern Central Railway (Pennsylvania system), A. C. Shand, chief engineer, Broad Street Station, Philadelphia, Pa., may include construction of coal pier on Canton water front in contemplated additions to terminal facilities.

Md., Baltimore—Pier.—Chesapeake Steamship Co., Light and Lee Sts., will enlarge dockage facilities at Pier 18 Light St.; widen structure on Light St. and increase length.

Miss., Bay St. Louis—Seawall.—Board of Commissioners, J. F. Cazenueve, president, awarded contract to Favre & Francis of Gulfport, Miss., to construct seawall from end of present wall to north end of property of St. Stanislaus College, 1500 feet; reinforced concrete. (Call for bids lately noted.)

Mo., Mokane—Revetment.—Government awarded contract to Fox & Bristol of St. Louis, Mo., at \$105,000 to construct revetment work on north bank of Missouri River one mile from Mokane; Herbert Deakne, Major, Engineers. (Call for bids lately noted.)

N. C., Beaufort—Wharves, etc.—E. C. Duncan of Raleigh, N. C.; W. B. Rodman and Morris S. Hawkins of Norfolk, Va., petitioned Legislature for authority to incorporate Beaufort Terminal Railroad Co. with \$5,000,000 capital stock for development of Cape Lookout as deep-water terminal for shipping by constructing railroad, wharves, piers, etc.

N. C., Wilmington—Lighthouses.—Louis H.

Skinner has contract for lighthouses on Cape Fear River; cost \$17,550; 22 reinforced concrete structures, set in place; upper steel structure on each, height from 10 to 30 feet, with acetylene light; these, with 10 structures previously erected by same contractor, complete system for Cape Fear River from bar to city.

Tex., Blessing—Canal.—Farmers' Canal Co., capital stock \$10,000, incorporated by J. O. Murphy, M. L. Herbane and C. E. Harter.

W. Va., Bluefield—Tunnel.—Virginian Railway, H. Fernstrom, chief engineer, Norfolk, Va., is preparing to complete proposed construction of Jenny's Gap tunnel; Goodwin, Boxley, Bray & Co. of Roanoke, Va., are contractors; J. W. Goodwin is in charge.

MISCELLANEOUS ENTERPRISES

Ala., Mobile—Drainage.—City will dredge in front of city wharves of about 80,000 cubic yards of material; P. Pillans, commissioner. (See "Machinery Wanted.")

Fla., Cedar Keys—Sponges, etc.—Cedar Keys Sponge & Development Co. organized to handle sponge, fish, oysters, etc.; W. C. Bryce, president; A. P. Schlemmer, vice-president; W. H. Anderson, Jr., secretary-treasurer.

Ga., Blue Ridge—Publishing.—Blue Ridge Publishing Co. incorporated by F. W. Padgett, A. P. Johnson G. A. Curtis and others.

Ky., Louisa—Publishing.—Big Sandy Enterprise Publishing Co., capital stock \$10,000, incorporated by N. E. Williams, G. W. Atkinson, C. B. Wellman and others.

La., Lake Charles.—Josey-Miller Company, Beaumont, Tex. (recently noted contemplating grain elevator), states that Lake Charles Grain Co. will erect building and install feed machinery, etc. (See "Flour, Feed and Meal Mills.")

La., Morgan City—Drydock.—T. L. Morsem, John R. Drackett and Maurice E. Norman are interested in plans to organize company to build drydock.

Md., Baltimore—Iron.—H. M. Foster Company, capital stock \$50,000, incorporated by H. M. Foster, M. M. Foster of Fairmont, W. Va., and others; to deal in iron, etc.; offices in Continental Bldg.

Md., Baltimore—Laundry.—Sterling Laundry Co., 400 N. Howard St., will erect two additional stories to building at 511-515 W. Franklin St.; awarded contract to David Utz, 20 E. Belvidere Ave.; plans by J. C. Spedden.

Md., Baltimore—Publishing.—Metropolitan Publishing Co., capital stock \$10,000, incorporated by Rev. Dr. William A. Fletcher (408 N. Charles St.), Rev. Dr. C. F. Thomas, James R. Wheeler, Thomas Foley Hiskey and Paul J. Prodoehl. Rev. M. F. Foley (pastor St. Paul's R. C. Church, 1501 Oliver St.) will be secretary.

Md., Hagerstown—Laundry.—Troy Laundry Co., capital stock \$30,000, incorporated by Archibald F. Hyson, Louis I. Blackman and William A. Householder.

Miss., Decatur—Printing.—Decatur Printing Co., capital stock \$5000, incorporated by W. A. Spivey, M. P. Foy and others.

Mo., Kansas City—Grain Elevator.—MacDonald & Co. will build grain elevator; awarded contract for 200 tons fabricated steel.

Mo., St. Louis—Laundry.—Lindell Laundry Co. incorporated by Walter Reck, J. H. Schmetz, O. T. Rick and R. A. Schnietz; capital stock \$5000.

Mo., Warrensburg—Publishing.—Warrensburg Star-Journal Publishing Co., capital stock \$25,000, incorporated by Lyda M. Middleton, Erma C. Crossley, C. D. Middleton and Wallace Crossley.

N. C., Charlotte—Electrical Repairing.—Charlotte Electric Repair Co., capital stock \$15,000, incorporated by Charles E. Barker, Thomas G. Lane and W. A. Lawrence.

N. C., Salisbury—Laundry.—E. M. Miller of Lynchburg, Va., will establish steam laundry; has building and will install machinery.

Okl., Enid—Printing.—Oklahoma Printing & Publishing Co., capital stock \$15,000, incorporated by Charles I. Stewart, Margaret Stewart and Thomas O'Brien.

Okl., Hobart—Laundry.—Hobart Steam and Queen City Laundries have consolidated as Hobart Steam Laundry with \$12,000 capital stock; remodel and enlarge plant; H. Hansen, president; G. W. Caldwell, vice-president-general manager; J. J. Hunter, secretary-treasurer.

Okl., Muskogee—Engineering and Construction.—National Engineering & Construction Co., capital stock \$3000, incorporated by Grant C. Whitney, Edward Atkinson and A. W. Lawrence.

Okl., Oklahoma City—Printing.—Oklahoma Printing & Publishing Co., capital stock \$15,000, incorporated by Charles I. Stewart, Margaret Stewart and Thomas O'Brien.

S. C., Charleston—Printing.—Proposals received by J. D. Newcomer, architect, 32 Broad St., until noon March 25 for erection of brick two-story and basement building, 38x125 feet, slow-burning construction, including plumbing, hot-water heating and electric wiring, for use of Charleston Evening Post; certified check, \$500; contractors may obtain drawings and specifications from architect by depositing certified check for \$25.

Tex., Bonham—Crematory, etc.—City will, it is reported, vote on \$3000 bond issue for crematory and \$6000 for fire equipment. Address The Mayor.

Tex., Dallas—Laundry.—George Leachman contemplates building steam laundry.

Tex., Dallas—Publishing.—Pitchfork Company, capital stock \$10,000, incorporated by Wilford B. Smith, Harry U. Campbell and George Clifton Edwards.

Tex., Denton—Laundry.—Mr. McLachlan and associates will build steam laundry; awarded contract to George Harris of Denton to erect building; one story; brick; cost \$4000; will remove machinery from present plant and install additional equipment.

Tex., Fort Worth—Publishing.—Denver Investment Co. will erect five-story building to cost about \$130,000; two lower floors and basement to be occupied by Fort Worth Record; Texas Building Co. has contract.

Tex., Rosenberg—Laundry.—Rosenburg Steam Laundry organized with E. J. Vawricka, secretary-treasurer, and R. J. Polasky, general manager; will install steam laundry; purchased equipment.

Va., Victoria—Publishing.—S. T. Terry is interested in proposed establishment of plant to publish newspaper. (See "Machinery Wanted.")

W. Va., Marlinton—Printing.—Marlinton Printing Co., capital stock \$5000, incorporated by William Gibson, G. M. Sharp, O. H. Kee, R. A. Kramer and others.

MISCELLANEOUS FACTORIES

Ala., Birmingham—Cotton Grader.—Southern Cotton Grader Co., capital stock \$25,000, incorporated; J. B. Floyd, president; Nathan L. Miller, vice-president; W. H. Gillespie, secretary-treasurer.

Ala., Mobile—Coffee.—Dixie Coffee Co., capital stock \$3000, incorporated by W. J. Frisbie, George T. Cowles, E. J. Clumpp and Dominick P. Kunz.

Ark., Conway—Brooms.—Central Broom Manufacturing Co., capital stock \$10,000, incorporated; L. H. Pyle, president-treasurer; A. E. Pyle, vice-president; J. Hayden, secretary.

Ark., El Dorado—Creamery.—El Dorado Milk & Cream Co., capital stock \$10,000, organized by L. H. Cornell of Milwaukee, Wis., and others.

Fla., Kissimmee—Shirtwaists.—Adolph Rosenberg will establish shirtwaist factory; incorporate company with \$20,000 capital stock; purchased machinery.

Fla., Orlando—Shoes.—W. R. Rhan, Box 276, will establish shoe factory recently noted; character of building to be erected not determined; cost of machinery \$1000; capacity 300 pairs shoes per week. (See "Machinery Wanted.")

Fla., Pensacola—Bottling.—Pensacola Beverage Co., capital stock \$30,000, incorporated; C. W. Fain, president; W. S. Guest, secretary-treasurer.

Fla., Pensacola—Candy.—M. G. Hoffman of Merrill, Wis., contemplates, it is reported, establishment of candy factory.

Ga., Macon—Candy, etc.—Lawton, Jordan & Co. of Jacksonville, Fla., capital stock \$10,000, incorporated by R. F. Lawton, W. T. Lawton and O. P. Lawton.

Ky., Louisville—Chemicals.—Allan Chemical Co., capital stock \$7000, incorporated by R. S. Allan, M. E. Allan and C. G. R. Zellich.

Ky., Louisville—Tannery.—William Schuff & Co. have plans by George Herbert Gray and Herman Wischmeyer, 708 Louisville Trust Bldg., Louisville, for four-story fireproof factory, warehouse and office building.

La., New Orleans—Industrial Building.—May & Ellis, 221 Charters St., plan erection of industrial building for miscellaneous industries; site 127x80 feet; Andry & Bender-nagel, architects, New Orleans, wire Manufacturers Record: "Ten stories high; floor area, 7800 square feet; concrete fireproof construction; windows on four sides."

La., New Orleans.—Crescent Bed Co., Ltd., will erect one story brick building; awarded contract to Fromberg & Drennan of New Orleans.

Md., Baltimore—Automobile Tires, etc.—Dreadnaught Tire & Rubber Co., authorized capital \$1,000,000, organized with A. F. Gilbert, president; Wilmer Dunbar (recently of Akron, O.), vice-president-general manager; Walter E. Hill, secretary; has option on several acres for plant, details of which have not been determined; contemplates erecting buildings and installing machinery to manufacture automobile tires and miscellaneous rubber goods; office at 1017 Munsey Bldg.

Md., Baltimore—Gas-heating Appliances.—Rector Vacuum Gas Heating Co., capital stock \$250,000, incorporated by Albert Diggs (agent General Fire Extinguisher Co., 510 Continental Bldg.) and others.

Md., Frederick—Brewery.—O. V. Heath of Chicago, Ill., is promoting organization of company to establish brewery with annual capacity of 30,000 barrels beer; plans to incorporate with \$150,000 capital stock.

Miss., Columbia—Bottling.—Columbia Coca-Cola Bottling Works, capital stock \$7000, incorporated by A. J. Crowe, A. Evans and J. C. Mills.

Miss., Laurel—Turpentine, etc.—Heald Manufacturing Co. (recently noted organized, Wister M. Heald, president, to manufacture pine wood products) states construction is completed; will begin operation within a few days; produce rosin, turpentine and pine oil.

Miss., Hattiesburg—Harness, etc.—Hattiesburg Harness & Leather Goods Co., capital stock \$10,000, incorporated by Ben M. Foster, B. C. Foster, W. P. Smith and others.

Miss., Vicksburg—Bottling.—Vicksburg Bottling Co., capital stock \$10,000, incorporated by Prospero Gargalis, Milfred Welch, Vincent Cassino and Joseph Lavecchia.

Mo., Festus—Bottles.—Festus Glass Co., capital stock \$40,000, organized to establish plant to manufacture bottles.

Mo., Kansas City—Confectionery.—Midwest Confectionery Co., capital stock \$10,000, incorporated by D. Lena Fletcher, W. R. Clements, J. H. C. Hopkins and J. Lester Cowans.

Mo., St. Louis—Monuments.—Breen Monument Co., capital stock \$15,000, incorporated by John Breen, Thomas P. Breen and William F. Gevers.

Mo., St. Louis—Medicine.—Frost Family Medicine Co., capital \$50,000, incorporated by F. W. Frost, Dr. Nelson Potter and others.

Mo., St. Louis—Saddlery.—Adams Osten Saddlery Co., capital stock \$8000, incorporated by William H. Boul, Joseph W. and Caroline Osten.

N. C., Charlotte—Brooms.—J. B. Wilson of Harmony, N. C., purchased 14-acre site and will establish broom factory.

N. C., Concord—Bottling.—Diamond Bottling Co. (recently reported incorporated with \$25,000 capital stock) is negotiating for building to be equipped as bottling plant; daily capacity 1000 bottles; M. L. Marsh, president; C. W. Widenhouse, vice-president; H. B. Hopkins, secretary-treasurer.

N. C., Hickory—Overalls.—Hickory Overall Co. (recently reported incorporated with \$25,000 capital stock) secured space 80x50 feet on second floor of building and will install equipment for overall factory; daily capacity, 50 dozen pairs overalls; machinery to be operated by electricity; J. D. Elliott, president; J. W. Hartsfield, vice-president; F. A. Henderson, secretary-treasurer.

N. C., Wilmington—Candy.—E. L. Matthews Candy Co., capital stock \$50,000, incorporated by E. L. Matthews, J. Lovie Davis and J. W. Jackson, Jr.; will continue established plant.

Okl., Manchester—Roosts.—Manchester Medicated Roost Co., capital stock \$30,000, incorporated by W. T. Hodson, Charles C. West, John H. Powers and others; is installing machinery in rented building to manufacture medicated, vermin-proof poultry roost; organization of company not complete.

Okl., Oklahoma City—Gloves.—Hanson Bros., 126 W. Reno Ave., contemplates establishment of factory for cotton canvas gloves. (See "Machinery Wanted.")

Okl., Oklahoma City—Ame Manufacturing Co., capital stock \$3000, incorporated by K. W. Dawson, Charles McQuilly, C. D. Wallace and others.

Okl., Oklahoma City—Clothing.—Capitol Sample Garment Co., capital stock \$5000, incorporated by Walter D. Caldwell, Edward Spiers and C. E. Wood.

Okl., Sapulpa—Candy.—Thomas F. Henry Candy Co. (recently reported incorporated,

capital stock \$10,000) will manufacture candy; daily capacity 2000 pounds; machinery installed.

Okl., Sapulpa—Glass.—Commercial Club has completed negotiations for establishment of glass plant; company to be known as Sapulpa Plate Glass Works.

S. C., Clio—Clocks and Jewelry.—Clio Clock & Jewelry Co. (recently noted incorporated) will erect \$6000 two-story brick building; opened building proposals March 1; purchased machinery costing \$3000; A. E. Squyers, president and manager; F. H. Ivy, vice-president and secretary-treasurer.

S. C., Williamston—Extracts and Spices.—Southern Extract & Spice Co., capital stock \$4000, incorporated; M. C. Mahaffey, president; D. L. Donald, first vice-president; J. C. Dillsworth, second vice-president; H. Mahaffey, Jr., secretary-treasurer.

Tenn., Chattanooga—Medicine.—Plank Chill Tonic Co., capital stock \$50,000, incorporated; continue established enterprise; F. M. Plank, president; O. F. Janes, vice-president; W. T. Gaston, secretary-treasurer.

Tenn., Harriman.—W. E. Bond, D. T. Jones and H. D. Ruble secured Evans Building and will equip as bakery; electrical equipment.

Tenn., Memphis—Bait Holters.—American Sanitary Co., capital stock \$2000, incorporated by R. H. Daniel Darnell, W. J. Kearney, J. F. Maury and others.

Tenn., Nashville—Waterproof Clothing.—Reeves & Fly Co., capital stock \$50,000, incorporated by J. H. Reeves, B. A. Hughes, J. O. Fly and others.

Tex., Dallas—Fireworks.—Texas Fireworks Co., capital stock \$20,000, incorporated by William A. Luce, John H. Winkelman and J. M. Johnson.

Tex., Quanah—Plaster.—Acme Cement Plaster Co. will improve plant; reported to erect power-house and install Diesel engines.

Tex., Marshall—Wrenches, etc.—Texas Wrench & Tool Co. (D. D. Dodd and others) will establish plant to manufacture wrenches; capacity 50 dozens daily; will install equipment, to be electrically operated; building ready. (See "Machinery Wanted.")

Tex., Palestine—Bottling.—Charles Lagerman will erect two-story building for bottling works.

Tex., Stamford—Brooms.—George E. Courtney, Haskell, Tex., will establish broom factory.

Va., Norfolk—Bakery.—Baltimore Bakery, capital stock \$5000, incorporated; R. Collector, president; M. Collector, vice-president-secretary.

Va., Petersburg—Cigarettes.—British-American Tobacco Co., Richmond, Va., contemplates, if it is reported, erecting six or seven-story steel and concrete building to be equipped for manufacturing cigarettes.

Va., Richmond—Broilers.—Noreck Broiler Co., capital stock \$15,000, incorporated; H. Noreck, president; A. M. Smith, secretary-treasurer.

Va., Richmond—Macadam Binder.—City Administrative Board invited Thomas Pritchard, engineer, Wilmington, N. C., to submit plans, specifications and estimates for plant to manufacture macadam binder (for use in street paving) from coal-tar by-product of city gas plant; estimated cost \$12,000; Chas. E. Bolling, City Engineer.

Va., Staunton—Shade Adjuster, etc.—Hiner Specialty & Manufacturing Co., South New St. (previously noted incorporated, \$25,000 capital stock), C. N. Hiner, president and manager, has equipped factory to manufacture automatic shade adjuster and specialties. (See "Machinery Wanted.")

W. Va., Bluefield—Overalls.—Brown Bros. (A. K. and C. M. Brown), Bristol, Va.—Tenn., contemplates establishing plant.

W. Va., Huntington—Glass.—Ohio Glass Co. of Mt. Vernon, O., contemplates establishing plant; secured option on six-acre tract on 26th St.

W. Va., Wellsburg—Glassware.—Glass Products Co., authorized capital \$350,000, incorporated by Ellis L. Steinhardt, Robert L. Noah, Jesse de Sola Mendes and others, all of 30 Church St., New York.

MOTORS AND GARAGES

Ark., Little Rock—Automobiles.—Paige-Detroit Auto Co., capital stock \$10,000, incorporated by A. C. Webb, W. M. Rankin, J. A. Weiman and others.

Ky., Middlesboro—Garage.—H. E. Motch will build garage.

Mo., St. Louis—Automobiles.—John Berry Automobile Co., capital stock \$20,000, incorporated by John Berry, Albert Bommer and Louis J. Koenigstein.

N. C., Asheville—Automobiles.—Lyerly Motor Co., capital stock \$3000, incorporated by D. K., W. K. and P. H. Lyerly.

S. C., Mt. Pleasant—Automobiles.—Arby Automobile Co., capital stock \$300,000, incorporated by Santo Sottile, M. R. Rivers and L. M. Pinckney.

Tenn., Nashville—Automobiles, etc.—Evans Motor Car Co., R. H. Evans, manager, 227 Third Ave. North, has taken over Automobile Manufacturing & Engineering Co.; will erect 150x300-foot cement building; install steel-grinding machinery; product, commercial motor cars and gas engines.

Tex., Bryan—Garage, etc.—L. A. Plask awarded contract at \$13,000 to erect building to have garage and blacksmith shop on lower floor. (See "Association and Fraternal.")

Tex., Victoria—Garage.—Park Garage, capital stock \$10,000, incorporated by John Frazer, J. T. Linebaugh and W. H. Crain.

Va., Waverly—Automobiles.—Waynesboro Automobile Co., capital stock \$150,000, incorporated; B. E. Watson, president; J. B. Yount, vice-president; H. M. Hanger, secretary-treasurer; David T. Colner, general manager.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Md., Baltimore—Northern Central Railway (Pennsylvania system). A. C. Shand, chief engineer, Broad St. Station, Philadelphia, Pa., contemplates extensive additions to terminal facilities, but has determined no details; may include construction of steel coal pier on Canton water front.

Md., Baltimore—Baltimore & Ohio Railroad Co., F. L. Stuart, chief engineer, Baltimore and Charles Sts., contemplates constructing additional coal pier at Curtis Bay, additional terminal facilities at Baltimore, etc., out of proposed \$63,250,000 bonds, issuance of which is planned; plans include: \$750,000 expenditure to improve Baltimore terminals; \$100,000, power and lighting equipment at Baltimore terminals; \$85,000, ventilating Mt. Airy (Md.) tunnel; \$175,000, Georgetown (D. C.) terminal; \$150,000, Mt. Clare (Baltimore) storehouse; \$1,000,000, automatic signals; \$500,000, interlocking plants; \$500,000, increased water facilities; \$400,000, telephone and telegraph systems; \$1,000,000, bridges; \$500,000, tools and machinery.

S. C., Anderson—Blue Ridge Railway, J. R. Anderson, superintendent, will, it is reported, erect \$75,000 passenger station; one story under ground; reinforced concrete; will also replace present wooden bridge over Main St. with concrete arch over track; total cost, \$100,000.

W. Va., Princeton.—Norfolk & Western Railway, C. S. Churchill, chief engineer, Roanoke, Va., will, it is reported, erect depot.

ROAD AND STREET WORK

Ala., Guntersville.—Marshall county votes March 31 on \$130,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

Ala., Oneonta.—Blount county votes April 3 on \$150,000 bond issue for road construction. Address County Commissioners.

Ala., Talladega.—City Commissioners decided to expend \$75,000 for paving; F. H. Power, City Engineer. (Recently reported to have awarded contract for 12,000 yards Bermudez asphaltic concrete paving, \$30,000 being available.)

Ark., Little Rock.—Legislature passed bill authorizing construction of macadam road from Little Rock to Memphis, passing through Pulaski, Lonoke, Monroe and St. Francis counties; will form link in ocean-to-ocean trunk-line highway; provided that Pulaski county contribute \$75,000, to be ratified at election; Joseph T. Robinson, Governor.

Ark., Bentonville.—City will pave portion of W. Spring St.; organized improvement district with W. M. Fishback and others commissioners.

Ark., Paragould.—Commissioners Street Paving District selected E. A. Kingsley of Little Rock, Ark., as engineer to supervise street paving; E. I. McKinley, City Clerk. (Recently mentioned.)

Fla., St. Augustine.—St. John County Commissioners will pave portions of John Anderson Boulevard from Duval county line to Volusia county boundary; plan to pave 7½ miles with brick and balance with material to be decided later; estimates are being prepared preparatory to drawing of specifications; Seth Perkins, Jr., County Engineer.

Fla., Tallahassee.—City will construct

5412.8 linear feet concrete curbing on Calhoun St.; bids received until March 13; A. H. Williams, clerk. (See "Machinery Wanted.")

Ky., Albany.—Clinton county will vote March 29 on \$50,000 bond issue for road construction. Address W. E. Beard, Albany.

Ky., Greenup.—Greenup county contemplates, it is reported, voting in May on bond issue to construct roads. Address County Commissioners.

Ky., Louisville.—City will construct 2575 square yards wood block paving; bids opened 2 P. M. March 13; D. R. Lyman, chief engineer Board of Public Works. (See "Machinery Wanted.")

Ky., Louisville.—Board of Public Works will construct 3000 square yards wood-block paving; bids opened March 21; D. R. Lyman, chief engineer. (See "Machinery Wanted.")

La., Donaldsonville.—Ascension Parish Police Jury created road district and ordered election for March 25 to vote on \$50,000 bond issue for road construction; proposes to construct gravel roads from Iberville to St. James' parish line and on both sides of Bayou Lafourche from Donaldsonville to Assumption parish line, 20 miles.

La., Many.—State Highway Department awarded contract to C. S. Jackson & Co. of Crowley, La., at \$24,900 to construct road from Many to Fort Jessup, 11 miles; width, about 36 feet; cut by drainage about every 200 yards; drainage ditches alongside; W. E.

La., New Orleans.—City will pave Magazine St. from Exposition Blvd. to upper end of Audubon Park with petroleolithic in accordance with plans and specifications on file in office of City Engineer; bids received until March 10; A. J. Riess, Commissioner. (See "Machinery Wanted.")

Md., Baltimore.—Board of Awards awarded contracts aggregating \$113,255.13 for street paving, as follows: Contract No. 43: M. J. Beach, 808 American Bldg., at \$43,171.50, for 17,000 square yards vitrified block; Contract No. 45: P. Flanigan & Sons, 120 E. Lexington St., at \$18,254.20, for 4750 square yards sheet asphalt and 4750 square yards bituminous concrete; Contract No. 46: P. Reddington & Sons, 221 St. Paul St., at \$14,127.83, for 5780 square yards paving; Contract No. 48: George Long Contracting Co., 1st St. and First Ave., at \$19,458, for 5000 square yards granite block; Contract No. 49: P. Flanigan & Sons, 120 E. Lexington St., at \$16,323.50, for 4750 square yards granite block; remaining three contracts, aggregating \$120,000, will be awarded at regular meeting on March 5. (Call for bids lately noted.)

Miss., Poplarville.—Pearl River county will, it is reported, vote March 22 on \$25,000 bond issue for road construction in Beat No. 1. Address County Commissioners. (Recently mentioned.)

Mo., Springfield.—Campbell Special Road District of Greene county contemplates voting on \$10,000 bond issue for road construction. Address District Commissioners.

Mo., St. Louis.—Board of Public Improvements will award contracts March 18 for brick, asphalt, Telford oil treatment and bitulithic pavement to cost \$181,531, and for alley improvements to cost \$5311.

Okl., Cleveland.—City will use following material for recently-noted paving: Vitrified brick blocks on concrete base, sand and cushion, cement grout filler; cost about \$59,000; engineer, Benham Engineering Co., 435 American National Bank Bldg., Oklahoma City, Okla. (See "Machinery Wanted.")

Okl., Durant.—City will pave Main St.; width, 36 feet; bids invited. Address The Mayor.

Tenn., Greenville.—Greene county will vote March 29 on bond issue for road improvements; G. S. Hay, clerk.

Tenn., Johnson City.—City will pave additional streets; awarded contracts for seven miles paving and is prepared to award contracts for three additional miles; George W. Cooke, commissioner.

Tenn., Selmer.—City will construct 12,000 square feet concrete sidewalks in business section; width 10 feet; four crosswalks 3½ feet wide; bids received until March 15. Address The Mayor.

Tex., Athens.—Precinct No. 1 of Henderson county votes April 5 on \$100,000 bond issue to improve roads. Address Precinct Commissioners.

Tex., Bay City.—Matagorda county voted \$300,000 bond issue to construct roads. Address County Commissioners. (Recently mentioned.)

Tex., Bonham.—City contemplates constructing concrete sidewalks, expending \$20,000. Address The Mayor.

Tex., Carrizo Springs.—City, A. P. Johnson,

City Clerk, will issue \$8000 of bonds for street improvements.

Tex., Greenville.—City will expend \$100,000 to construct paving on various streets; A. L. Donaldson, engineer in charge; contract recently noted awarded to Levy & Levy, Muskogee, Okla., for asphaltic concrete paving.

Tex., Lockhart.—Road District No. 4 of Caldwell county voted \$40,000 bond issue for road construction. Address District Commissioners.

Tex., Longview.—City contemplates voting on \$100,000 bond issue to construct additional paving. Address The Mayor.

Tex., Marshall.—City will pave East Austin St.; about eight blocks; cost \$125,000. Address The Mayor.

Tex., Pearsall.—Frio county contemplates construction of 150 to 200 miles of road; \$50,000 available. Address County Commissioners. (Bond issue recently noted.)

Tex., Pittsburg.—Camp County Commissioners awarded contract to Wilson & McElrath to construct 35 miles of road.

Tex., Pleasanton.—Precinct No. 3 of Atosca county voted \$25,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

Va., Richmond.—City will construct about 70,000 square yards smooth paving, 65,000 yards granite spall paving, 16,000 linear feet granite curbing and 10,000 feet granolithic curb and gutter; Chas. E. Bolling, City Engineer; bids received until 12 noon March 14. (See "Machinery Wanted.")

Va., Salem.—Roanoke County Supervisors will ask for bond issue of \$300,000 to construct 72 miles of roads in various parts of county. (Recently noted under Va., Roanoke.)

SEWER CONSTRUCTION

Ala., Mobile.—City will construct sanitary sewer system through western portion of city; about 30,000 linear feet 8 to 20-inch vitrified pipe; plans and specifications on file in office of City Engineer, Wright Smith; P. Pillans, commissioner. (See "Machinery Wanted.")

Ala., Hartsboro.—City voted bond issue to construct sewer system, electric-light plant and water-works; total estimated cost, \$40,000. Address The Mayor. (Recently mentioned.)

Ala., Mobile.—City will construct open storm sewer on St. Louis St.; brick or concrete bottom and concrete sides; bids received until 12 noon March 11; Wright Smith, City Engineer. (See "Machinery Wanted.")

Ky., Louisville.—Board of Public Works will receive bids until March 14 to construct 43 blocks of sewers; funds to be provided out of \$1387,500 derived from sale of city's gas stock.

Ky., Madisonville.—Board of Public Works, W. J. Dulin, secretary, is having plans and specifications prepared for sewer system; let contracts April 2. (See "Machinery Wanted.")

N. C., High Point.—Barbee Development Co. awarded contract to J. B. McCrary Company, Atlanta, Ga., to construct sewer and water systems for Barbee Heights, suburb of High Point; cost \$12,000 to \$15,000; to be completed by May 1; contractor to furnish all material.

N. C., Clayton.—City awarded contract to Dabbs & Mayers, Charlotte, N. C., for sewer and water-works construction recently noted; Gilbert C. White, consulting engineer, Charlotte, N. C. (See "Water-works.")

Okl., Henryetta.—City engaged Benham Engineering Co. of Oklahoma City, Okla., to prepare plans and specifications and supervise construction of sanitary sewer system; estimated cost, \$50,000.

Tenn., Martin.—City will construct sanitary sewer system; about 3000 feet 15-inch, 6200 feet 12-inch, 3500 feet 10-inch, 15,350 feet 8-inch and 23,000 feet 8-inch pipe, together with manholes and flush tanks; bids received March 24 (extended date); J. H. Wilson, Recorder; R. C. Huston & Co., consulting engineers, 630 Exchange Bldg., Memphis, Tenn. (Recently noted. See "Machinery Wanted.")

Tex., Temple.—City votes April 1 on \$75,000 bond issue to acquire sanitary sewer system; will either purchase plant of Temple Sanitary Sewer Co. or construct system; W. E. Dozier, City Engineer. (Recently mentioned.)

TELEPHONE SYSTEMS

Ark., Scranton.—Logan County Telephone Co., capital stock \$100,000, incorporated; will maintain central office at Paris, Ark.; H.

Webb, president, Rossville (R. F. D. from Ozark, Ark.); Dr. Earl Hunt, vice-president, Clarksville, Ark.; James R. Gronds, general manager, Paris, Ark.

Ky., Paducah.—East Tennessee Telephone Co. (main office, Nashville, Tenn.) plans improvements to telephone system in Paducah; appropriated \$300,000; L. L. Billups, local manager.

La., New Orleans.—Western Union Telegraph Co. (New York address, 195 Broadway) will improve and remodel building at cost of \$50,000.

N. C., Pinnacle.—Pinnacle Telephone Co., capital stock \$1000, incorporated by M. F. Batner, J. R. Stone, Thomas Allen and others.

Okla., Doby Springs.—Clark Creek Valley Telephone Co. incorporated by J. W. Blanchard and A. T. Butler.

Tex., Carlsbad.—S. D. Campbell, manager, San Angelo Telephone Co., states building recently noted to be erected will be small four-room frame structure; later may erect better building.

Tex., Houston.—Southwestern Telegraph & Telephone Co. (main office, Dallas, Tex.) will rebuild telephone system between Houston and Galveston, Tex., 50 miles.

Va., Carson.—Carson Telephone Co., capital stock \$2500, incorporated; proposes to construct telephone system 90 miles long in Prince George county; W. T. Saunders, president; N. H. King, vice-president; J. D. Wilkerson, secretary; R. B. Saunders, treasurer.

Va., Mangohick.—Farmers' Union Telephone Co. (recently noted incorporated with \$5000 capital stock) has built 20 miles of telephone line; now extending line to Hanover, Va., and will from time to time construct from 100 to 200 miles of line; W. T. Meeklar, official in charge. (See "Machinery Wanted.")

TEXTILE MILLS

Ga., Columbus.—Cotton Cloth.—Eagle & Phenix Mills will add 272 looms, 3156 spindles, dyeing machines, etc.; has awarded contracts.

N. C., Cumberland.—Cotton Yarn.—Necron-sett Mills succeeds Cumberland Mills, owned by J. Frederic Houston Company of Philadelphia, Pa.; has about 5000 spindles and will, it is reported, double that equipment and build additional mill to have 10,000 spindles. (Recently reported incorporated, \$400,000 capital stock, by J. Frederic Houston of Philadelphia, Pa., and others.)

N. C., Mt. Holly.—Cotton Yarn.—Albion Mills will install 2449 spindles to replace old equipment; has awarded contract.

N. C., Mt. Holly.—Cotton Yarn.—Mt. Holly Cotton Mills will install 2112 spindles to replace old similar equipment; has awarded contract.

S. C., Chester.—Cotton Cloth.—Eureka Cotton Mills' recently reported annex will be 2x75-foot addition to weaverroom; brick construction; contractor, J. A. Jones of Charlotte, N. C.; will add 100 looms; this machinery ordered.

S. C., Paeolet.—Sheeting, etc.—Paeolet Manufacturing Co. will add 30 spinning frames, 6 speeders, 2 spoolers, 2 warpers, etc.; has awarded contract.

S. C., Rock Hill.—Cotton Cloth.—Hamilton Carhartt Cotton Mills awarded contract to Love & Owens of Rock Hill for constructing one-story addition to enlarge slasher-room; also will add new machinery on main floor.

Tenn., Memphis.—Cotton Goods.—Memphis Cotton Manufacturing Co. organized with George W. Foose president, G. H. Barney vice-president, A. L. Gardner vice-president, W. T. McCain secretary; office at 1201 Central Bank Bldg.; plans to erect buildings and install machinery for \$100,000 plant to manufacture cotton goods from lint, using A. L. Gardner process to reclaim lint; machinery ordered in Germany; expects to have plant in operation by July. (Recently reported incorporated with \$250,000 capital stock.)

WATER-POWER DEVELOPMENTS

Ala., Ashland.—A. A. Northen contemplates construction of cement dam to develop water-power and installation of machinery to generate electricity for light and power; is now investigating construction and machinery required. (See "Machinery Wanted.")

Ala., Ragland.—Ragland Water Power Co., W. T. Brown, president, plans to begin construction of hydro-electric plant; contemplates raising Coosa River lock No. 4 dam from present height of 15 feet to 18 feet, and ultimately to 22 feet, to develop 10,000 horse-

power; proposes transmitting electricity to Ragland, Anniston and other cities. (Previously reported organized, etc.)

W. Va., Springfield.—Magnolia Power Co., capital stock \$100,000, incorporated by Wm. E. Walsh, Peter J. Seaver, Cyril B. Gore and others, all of Cumberland, Md.; proposes to construct hydro-electric plant on South Branch River of Potomac River to transmit electricity to Springfield, Romney and other points in Hampshire county. (Recently mentioned under "Electric Plants.")

WATER-WORKS

Ala., Hartsboro.—City voted bond issue to construct water-works, electric-light plant and sewer system; artesian water; total estimated cost, \$40,000. Address The Mayor. (Recently mentioned.)

Ark., Hot Springs.—Hot Springs Water Co. increased capital stock from \$80,000 to \$500,000.

Ark., Sulphur Springs.—City will construct previously-noted water-works and lighting plant, including power and pump-houses, machinery and electrical equipment, water pipe, valves and 100,000-gallon standpipe; plans, etc., with Improvement Board, C. J. Williams, chairman, and at office of engineer, A. C. Moore, Independent Bldg., Joplin, Mo.; bids received until March 20. (See "Machinery Wanted.")

Ga., Rochelle.—City engaged J. B. McCrary Company, Atlanta, Ga., to make surveys and estimate cost of water-works and electric-light plant; M. C. Carter, Clerk. (Recently noted as to vote on construction of water-works and electric-light plant.)

Ky., Madisonville.—Board of Public Works, W. J. Dulin, secretary, is having plans and specifications prepared for water system; will let contracts April 2. (See "Machinery Wanted.")

N. C., Clayton.—City awarded contracts for water-works, electric-light plant and sewer system as follows: Dabbs & Myers, Charlotte, N. C., for water-works and sewers; Tucker & Laxton of Charlotte, electric-light plant; United States Cast Iron Pipe & Foundry Co., Chattanooga, Tenn., cast-iron water pipe; Pomona Terra-Cotta Co., Pomona, N. C., sewer pipe; Des Moines Bridge & Iron Co., Des Moines, Iowa, for 100-foot tower and 100,000-gallon tank; John H. McGowan Company, Cincinnati, O., lowest bidder on machinery; Gilbert C. White, consulting engineer, Charlotte, N. C. (Recently noted.)

N. C., Durham.—Legislature passed bill authorizing city to vote on \$500,000 bond issue for water-works; Gilbert C. White, engineer, Charlotte, N. C., has been engaged to examine water-works and prepare plans for watershed on Flat River. (Recently mentioned.)

N. C., High Point.—Barbee Development Co. awarded contract to J. B. McCrary Company, Atlanta, Ga., to construct water and sewer systems for Barbee Heights, suburb of High Point. (See "Sewer Construction.")

N. C., Raleigh.—City reported as to purchase water-works plant operated by Wake Water Co.; Gilbert C. White, consulting engineer, Charlotte, N. C. (Wake Water Co. recently noted as contemplating expenditure of \$65,000 for enlarging plant.)

N. C., Spencer.—Board of Aldermen plans to purchase plant of Spencer Water Co.; city has authority of Legislature to vote on \$50,000 bond issue for water-works and electric-light plant. Address The Mayor. (Recently mentioned.)

Okla., Purcell.—City awarded contract to J. W. Kennedy at \$23,974 to rehabilitate water-works and electric-light plant. (Recently reported to have purchased Purcell water, light and ice plants.)

S. C., Camden.—Carolina Public Service Co., Raleigh, N. C., leased plants of Camden Water, Light & Ice Co. (See "Ice and Cold-storage Plants.")

Tex., Albany.—Town contemplates constructing water-works. Address Town Clerk.

Tex., Canadian.—City has \$27,000 available to construct water-works recently noted; 700,000 gallons daily capacity; erect pump-house, 16x20 feet, frame and galvanized iron; also construct standpipe, 25x60 feet; cost of pump-house and standpipe, \$4250; no contract; opens machinery bids March 17; H. F. Kilburn, engineer in charge, Woodward, Okla. (See "Machinery Wanted.")

Tex., Del Rio.—East Side Water Co., capital stock \$6000, incorporated by W. H. McKinney, W. E. Weathersbee and L. O. Weathersbee.

Tex., Flatonia.—C. A. Pierson of Axtell, Neb., purchased Flatonia water, ice and electric plants; will improve.

Tex., Fort Worth.—City votes April 8 on

\$300,000 bond issue for water-works. Address City Commission.

Tex., New Boston.—City voted \$15,000 bond issue to construct water-works; daily capacity 100,000 gallons; O. B. Pirkey, Mayor. (Recently mentioned.)

Tex., Rockdale.—City voted \$30,000 bond issue to purchase, improve and extend water-works. Address The Mayor. (Recently mentioned.)

WOODWORKING PLANTS

Fla., Palatka.—Barrels.—Paul & Waymer Lumber Co., F. E. Waymer, manager, Jacksonville, Fla., will erect slack barrel factory recently noted; building 40x80 feet; mill construction; wood; owners will erect; daily capacity 20,000 slack barrels. (See "Machinery Wanted.")

Ga., Columbus.—Barrels.—Columbus Barrel Co. will rebuild cooage recently reported burned at estimated loss of \$50,000.

Ga., McGruder, P. O. Midville.—Excelsior Plant.—Allen W. Jones, Midville, is interested in proposed establishment of excelsior plant. (See "Machinery Wanted.")

Ky., Louisville.—Furniture.—Peter Jacobson & Son will rebuild furniture factory burned at estimated loss of \$35,000.

La., Honey Island.—Veneers.—Globe Packing Box Co., New Orleans, La., has purchased approximately 14,000 acres hardwoods and will manufacture into lumber and commercial veneer; has begun erection of veneer factory which will cost approximately \$40,000. (Recently reported as purchasing Honey Island timber, etc.)

Miss., Brookhaven.—Handles.—Michigan Handle Co., capital stock \$10,000, incorporated by William Latta, V. B. Davy and others.

N. C., Kinston.—Woodworking.—Kinston Woodworking Co., H. A. Prevonga, president and manager, advises that recently-noted plant is erected for woodworking.

N. C., Oriental.—Barrels.—Farmers' Manufacturing Co., F. C. East, president, Norfolk, Va., secured three months' option on 20,000 acres timber land and proposes erecting barrel factory.

N. C., Stokesdale.—Box Shooks, Flooring, etc.—Stokesdale Lumber Co., capital stock \$10,000, incorporated; T. S. Coan, president and manager; will erect 40x60-foot \$250 building; install machinery costing about \$3500; manufacture box shooks, flooring, ceiling and siding.

Tex., Denison.—Safes and Fixtures.—W. D. Collins Safe & Fixture Co. contemplates erection of 50x100-foot combined wareroom and planing mill shop; brick or pressed steel front; corrugated iron roof and sides; several sections steel window sash; concrete floors. (See "Machinery Wanted.")

Tex., Mineola.—Boxes.—Mineola Box Co. (John M. Butcher, owner, Vassar, Mich.) will arrange to rebuild box factory recently reported burned at loss of \$30,000.

BURNED

Ala., Demopolis.—Public school; loss \$15,000. Address The Mayor.

Ala., Eclectic.—Elmore County High School; loss \$12,000; H. J. Willingham, State Superintendent of Education, Montgomery, Ala.

Ala., Enfauila.—J. R. Barr's residence on Barbour St.; loss \$13,000.

Ala., Greenville.—W. T. Daniel's residence in Butler county.

Ala., Greenville.—Mrs. Nannie Buchault's plantation residence.

Ala., Montgomery.—American Salvation Army's industrial home on Whitman St.; A. Ojum, adjutant.

Ark., Argenta.—Gulf Compress Co.'s plant; estimated loss on buildings and machinery, \$75,000.

Fla., Millville.—Beebe Hall, occupied by Wood & Bush and others.

Ga., Atlanta.—L. J. Bentley's machine shop at 1 La France Ave.; loss \$4000 on machinery.

Ga., Lumpkin.—Mrs. J. J. Thompson's residence; loss \$7500.

Ga., Quitman.—Quitman Ginney Co.'s cotton gin.

Ga., Social Circle.—Mrs. Maggie Smith's residence; loss \$2000.

Ga., Statesboro.—J. A. Wilson's planing mill.

Ga., Morven.—Morven Ginning Co.'s plant, owned by O. K. Jinks of Quitman, Ga.; loss \$8000.

Ga., Washington.—W. S. Hellams' cotton gin; loss about \$5000.

Ky., Benham.—W. C. Tucker's residence.

Ky., Clinton.—Bob Kimbro's residence, Ky., Hazard.—S. A. D. Jones' three buildings; loss \$8000.

Ky., Louisville.—H. Jacobson & Son's furniture plant at 559-565 Logan St.; loss \$35,000.

Ky., Paris.—Paris Distilling Co.'s plant, owned and operated by Kentucky Distillers' Warehouse Co.; loss \$100,000.

La., Shreveport.—D. T. Manning's building; Hall Gatti's blacksmith shop; Silver-stine Bldg.; Louisiana Development Co.'s building damaged; loss \$15,000.

La., Spring Hill.—Spring Hill Lumber Co.'s plant.

Md., Baltimore.—E. H. Josselyn, 714 N. Durham St., states candy factory building was but slightly damaged. (Recently noted damaged at loss of \$15,000.)

Mo., Clinton.—Methodist Episcopal Church South; loss \$8000. Address The Pastor, Methodist Episcopal Church South.

Md., Elkton.—Mrs. Elizabeth Loose's dwelling and stable.

Md., Easton.—J. H. E. Dawson's residence at Idlewild Farm; loss \$12,000.

Md., Howardville.—Cottage owned by Mrs. Thomas Hill, 1302 McCulloh St., Baltimore, Md.; loss \$5000.

Md., Montell, P. O. at Mount Savage.—Maryland & George's Creek Mining Co.'s power-house; loss \$5000.

Md., Royal Oak.—Oyster House, owned by J. Edward Hylor and Guion Miller.

Miss., Chicora.—Robinson Lumber & Lumber Co.'s sawmill; loss about \$100,000.

Miss., Hattiesburg.—Julius K. Denham's two residences at College and Miller Sts.; loss \$5000.

Mo., Kansas City.—Kansas City Hardwood Flooring Co.'s plant; loss \$45,000.

Mo., Kansas City.—Kansas City Automobile Club on Grandview Rd.

Mo., St. Louis.—Crescent Paper Co.'s building at 215 N. 2d St.; loss \$50,000.

N. C., Goldsboro.—Royall & Borden Felt Mattress Manufacturing Co.'s plant.

N. C., Rocky Mount.—George Bullock's cotton gin; estimated loss \$3000.

N. C., Salisbury.—W. H. Woodson's seven dwellings; loss \$4000.

Okla., Krebs.—Chicago, Rock Island & Pacific Railway Co.'s depot; J. B. Berry, chief engineer, Chicago, Ill.

Okla., Lyons.—George McLemore's store.

S. C., Newberry.—S. J. Turner's residence; loss \$3500.

Tenn., Flatwoods.—Flatwoods Mercantile Co.'s store.

Tenn., Knoxville.—C. H. Jefferies' building.

Tenn., Tulahoma.—Methodist Episcopal Church at Marble Plains. Address The Pastor, Methodist Episcopal Church.

Tenn., Waverly.—Building owned by Ancient Free and Accepted Masons and Knights of Pythias, loss \$5000; Martin Bldg., loss \$5000.

Tex., Granger.—Hullhouse of Granger Oil Co.

Tex., Dallas.—J. L. Chandler's residence, loss \$3500; Rev. H. Beauchamp's residence, loss \$3500.

Tex., Pearsall.—John D. Eldridge's residence on N. Oak St., occupied by Thomas H. Ward, loss \$6000.

Tex., Rogersville.—W. P. Powell's hardwood mill.

Tex., Rusk.—Texas Penitentiary's machine shops, carpenter shop, laundry, dining-room and chapel; estimated cost, \$100,000; Ben E. Cabell, chairman Prison Commission, Huntsville, Tex.

Tex., San Antonio.—Joseph Landa's feed and grain warehouse; loss \$25,000.

Tex., Santo.—J. S. Lanham's store.

Tex., Temple.—Arthur F. Lange's cottage; loss \$3000.

Va., Charlottesville.—Yancey Ice Co.'s plant damaged.

Va., Cluster Springs.—Cluster Springs Academy; loss \$3500.

Va., Hallwood.—John Taylor's store and warehouse; loss about \$20,000.

Va., Lexington.—Washington and Lee University's gymnasium; loss \$5000.

Va., Lynchburg.—Hubbard Foundry and Machine Works damaged to extent of \$4000.

Va., Roanoke.—Noble Livery Co.'s stable at 123-25 Church Ave.

Va., Staunton.—G. S. Rosenberger & Co.'s store; loss \$10,000.

Va., South Boston.—Mrs. Carrie V. Clark's residence; loss \$500.

Va., Temperanceville.—Charles Rogers' store.

W. Va., Jumping Branch.—Baptist Church; loss, \$500. Address The Pastor, Baptist Church.

W. Va., Martinsburg.—Miller Grocery Co.'s building; loss \$400.

W. Va., Reader.—C. J. Morris' store; A. R. Gadd's undertaking establishment.

DAMAGED BY STORM

Ala., Greenville.—Purity Fertilizer Co.'s plant damaged, loss \$300; Gulf Red Cedar Co.'s plant damaged, loss \$150.

WRECKED BY EXPLOSION

Tex., Lufkin.—Houston East & West Texas Railroad, W. G. Von Vleck, general manager, Houston, warehouse; loss \$15,000.

Tenn., Dresden.—Sld Farmer's planing and saw mill; estimated loss \$8000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ala., Birmingham.—W. G. Oliver, 2025 Third Ave., will erect 15 one-story tenement-houses; cost \$10,400.

D. C., Washington.—Bates Warren, Columbia Bldg., will erect apartment-house; 100x145 feet.

D. C., Washington.—James J. Lampton, 1410 G St. N. W., will probably erect apartment-house at Rhode Island Ave. and 9th St.

Fla., Tampa.—W. P. Bethea will erect apartment-house; cost \$4500.

Ga., Atlanta.—Dr. W. E. Lambright has plans by A. F. N. Everett for apartment-house at 469 N. Boulevard; frontage 90 feet; two wings with court between; three stories; six four and three-room suites; porches; pressed brick; red tile roof; cost \$45,000.

Ga., Macon.—A. M. Irvin will erect tenement-house; frame; cost \$3000.

Mo., Kansas City.—J. B. Robinson has plans by J. G. Braecklein, Kansas City, for apartment-house at Linwood Blvd. and Brooklyn Ave.; four stories; eight apartments; reinforced concrete; cut stone trimmings.

Mo., St. Louis.—A. J. McGowan will erect two two-story tenements at 5147-49 N. Market St.; cost \$9000.

Mo., St. Louis.—A. Degenhardt will erect two two-story tenements at 4247-53 Juniata St.; cost \$10,800.

Mo., St. Louis.—William and Mary Friese will erect apartment-house on Barrett St.; four and five-room suites.

Mo., St. Louis.—P. J. Ryan will erect two-story tenement-house at 5546-48 Easton St.; cost \$4500.

Mo., St. Louis.—Herman Roesch will erect two-story tenement-house at 4745-47 S. Broadway; cost \$5000.

Mo., St. Louis.—Wakefield Realty Co. will erect three-story tenement-house at 4530 McPherson St.; cost \$15,000.

Mo., St. Louis.—G. A. Miller will erect two-story tenement-house at 4528 Chouteau St.; cost \$3700.

Mo., St. Louis.—Agnes Fisher will erect two two-story tenement-houses at 5124-30 N. Market St.; cost \$10,000.

Mo., St. Louis.—Charles J. Toenelochm will erect three two-story tenements at 3600-12 Bamberger St.; cost \$15,000.

Mo., St. Louis.—John Fay will erect two-story tenement-house at 1522 Salisbury St.; cost \$4900.

Mo., St. Louis.—H. Ahrens will erect two two-story tenement-houses at 3715-17 N. Taylor St.; cost \$10,000.

Mo., St. Louis.—A. C. Hart, 5445 Eastern Ave., will erect tenement-house; 50x60 feet; brick; steam heat; electric lighting; gravel roof; cost \$22,000; plans and construction by owner.

Mo., St. Louis.—Charles S. Muerl will erect three apartment-houses at 511-23 Fassen St.; cost \$15,000.

Mo., St. Louis.—A. T. Flint will erect apartment-house at 3839 Shaw Ave.; two stories; cost \$5000.

Mo., St. Louis.—W. C. Bosquit will erect two-story apartment building at 4281 Hartford St.; cost \$4000.

Mo., St. Louis.—Charles Kurlander has plans by J. Hirschstein, St. Louis, for apartment-house on Hamilton Ave. between Page Blvd. and Julian Ave.; 12 apartments of six and seven rooms; cost \$30,000.

Mo., St. Louis.—Clem Dagenhardt will erect four two-story tenement-houses at 531-33-35-37 Fassen St.; cost \$10,400.

Mo., St. Louis.—Ellendale Building Co. will erect building on Manchester Ave.

Mo., St. Louis.—W. Matthews will erect

two-story tenement-house at 4130-32 Botanical St.; cost \$6900.

N. C., Henderson.—Mrs. Thad R. Manning plans to erect apartment-house; wood; steam heat.

Okla., Tulsa.—A. M. Hammett will erect apartment-house on S. Boulder St.; two stories; brick; cost \$17,000.

S. C., Anderson.—Asa Hall will erect apartment-house on John St. in rear of Y. M. C. A. building; four apartments of eight rooms and cellar; brick construction.

S. C., Anderson.—Keith Prevost and Carlisle McKinney will erect apartment-house on Sharp St.

S. C., Greenville.—W. J. Moore, Greenwood, S. C., will erect apartment-house on W. Washington St. opposite St. Mary's Catholic Church; four stories; brick; elevator; site 117½x180 feet.

Tenn., Chattanooga.—J. W. Massey will erect apartment-house on 11th St. between Park and Fairview Aves.; cost \$4000.

Tenn., Knoxville.—T. G. Brown will not erect apartment-house as recently reported.

Tenn., Nashville.—Charles Davitt will erect apartment-house; cost \$30,000.

Tex., Galveston.—Mrs. Sallie F. Conklin will erect apartment-house; three stories; about 35 rooms in suites.

Tex., Houston.—Charles DuBard will erect store and apartment building; two stories; brick; cost \$15,000.

Tex., Houston.—I. Kapner will erect apartment-house at Dallas Ave. and San Jacinto St.

Va., Petersburg.—Pyle & Co. are reported as financing company with \$100,000 capital stock to erect apartment-house at Sycamore and Fillmore St.

Va., Pocahontas.—Edward Holland opens bids through E. V. Garrett, architect, Pocahontas, to rebuild apartment-house recently burned; ground floor, 25x44 feet; three stories; ordinary construction; 12-inch brick walls; tin roof; cost \$3500. (See "Machinery Wanted.")

ASSOCIATION AND FRATERNAL

Ala., Birmingham.—Fairview Lodge No. 644, A. F. and A. M., plans to erect lodge building.

Ala., Cullman.—Fraternal Hall Association, organized by Independent Order of Odd Fellows and Red Men, has lot 50x132 feet and will erect building 35x85 feet; brick or monolithic hollow wall reinforced concrete construction; plans and specifications on file with Bernard Kiel, secretary; bids invited until March 30.

Ala., Pratt City.—Pratt City Aerie, Fraternal Order of Eagles, plans to erect lodge building; two stories; brick; lower floor for stores; upper floor for lodgerooms.

Ark., Little Rock.—Central Trades Council, L. H. Moore, secretary-treasurer, 512 E. 8th St., purchased site and will erect labor temple; details not complete. (Recently reported.)

La., Morgan City.—Morgan City Lodge No. 1121, Benevolent Protective Order of Elks, will erect lodge building to cost \$12,000; Herbert M. Cotten, chairman of committee.

Miss., Columbus.—Young Men's Christian Association plans to erect building to cost \$40,000.

Miss., McComb.—Pike Camp, Woodmen of the World, is considering erection of lodge building; cost \$15,000.

Mo., St. Louis.—St. Louis Lodge No. 3, Loyal Order of Moose, acquired building at Grand Ave. and W. Pine Blvd. and will, it is reported, expend \$30,000 to renovate and refurbish.

N. C., Spencer.—Southern Railway Co., B. Herman, chief engineer, 1300 Pennsylvania

Ave. N. W., Washington, D. C., is reported as to remodel Young Men's Christian Association building; will install tile floors in kitchen, provide additional living apartments, etc.

Tenn., Nashville.—Ancient Free and Accepted Masons plan to erect Scottish Rite Cathedral at Twenty-fifth and West End Aves.; Greek style; no openings except front door; ventilated through roof; one story; 60 feet high; green enamel brick; green tile roof; main hall with stage in center to seat 1250; will expend \$25,000 for interior decorations; total cost \$150,000. (Recently noted.)

Tenn., Tracey City.—Wampunola Tribe No. 90, Improved Order of Red Men, plans to erect building; concrete or brick; 30x60 feet; three stories; lower floor for stores; second floor for offices; upper floor for lodgerooms.

Tex., Comanche.—Comanche Lodge, Independent Order Odd Fellows, will erect two-story building to be used as lodge.

Tex., El Paso.—Scottish Rite Masons will erect cathedral at W. Missouri St. and Upson Ave.

Tex., Guy.—Adolph Seiler is interested in erection of building for Woodmen of the World.

Tex., Harlingen.—Loyal Order of Moose will erect lodge building; two stories; brick; 24x80 feet; lower floors for stores.

Tex., Houston.—Houston Lodge No. 151, Benevolent Protective Order of Elks, acquired residence at Walker Ave. and San Jacinto St. and will, it is reported, expend \$50,000 to remodel and equip for lodgerooms.

Tex., San Antonio.—San Antonio Turn Verein has plans by Alfred Giles Company, San Antonio, for improvements and additions to building; fireproof; floor and roof of new banquet hall of reinforced concrete, supported by reinforced concrete columns, on new and separate foundation from present structure; roof garden; porte cochere, over which will be balcony; fire-escapes. (Recently noted.)

BANK AND OFFICE

Ark., Ashdown.—H. G. Sanderson opens bids March 15 to erect office and store building recently noted; 75x110 feet; two stories; steam heat; electric lighting; Carey's roofing; cost \$10,000; plans by J. H. Bliss, Hope, Ark. (See "Machinery Wanted.")

Ark., Little Rock.—J. E. Skillern opens bids March 12 to erect office and store building recently noted. (See "Stores.")

Fla., Tampa.—Tampa Electric Co. will erect office building at Tampa and Cass Sts.; two stories; 60x65 feet. (See "Electric Plants.")

Ky., Louisville.—Trevor H. Wayne, president Burton-Whayne Company, states company has no plans for office building as recently reported.

Ky., Louisville.—William Schuff & Co. have plans for office, warehouse, etc. (See "Miscellaneous Factories.")

Ky., Somerset.—George S. Forth will erect store and office building. (See "Stores.")

Ky., Whitesburg.—Mountain Eagle Publishing Co. will erect office building.

Miss., Marks.—L. Marks & Sons will erect store and office building. (See "Stores.")

Mo., Kansas City.—Kansas City Southern Railway, C. E. Johnston, chief engineer, Kansas City, it is reported, will occupy building at Wyandotte and 11th Sts., to be erected by Mrs. Mary B. Case of Englewood, N. J.; six or seven stories; 96x142 feet; company's present office in Thayer Bldg., 9th St. and Broadway.

Mo., St. Louis.—German Savings Institution, Nelson W. McLeod, president, has plans by Albert B. Groves, St. Louis, for proposed bank building at Broadway and Pine Sts.; 64x85 feet; about 85 feet high.

Mo., St. Louis.—Pelligreen Construction Co. is reported as to erect store and office building. (See "Stores.")

N. C., Blowing Rock.—Blowing Rock Bank will erect cement building.

N. C., Henderson.—Farmers and Merchants' Bank purchased site but will not erect building for several years. (Recently noted.)

N. C., Wilmington.—Murchison National Bank will expend \$100,000 to erect bank building; architect not selected. (Recently noted.)

Okla., Cherokee.—Farmers' National Bank will probably rebuild bank building; plans not definite. (Recently noted burned.)

S. C., Anderson.—Bank of Anderson will erect office building.

S. C., Greenville.—Farmers and Merchants' Bank will improve bank building; will provide new front of white terra-cotta trimmed with marble, etc.

Tenn., Nashville.—Fite estate and others, through Davis Cockrell-Finegan Real Estate Co., are having plans prepared by C. K. Colley, Nashville, for building at Union St. and Second Ave.; 21 stories; 250 feet high; lower stories of white marble; crown of tower white glazed terra-cotta; intervening floors of vitreous brick; three electric elevators; metal doors, window frames, etc.; concrete floors over reinforced tile and steel girders; interior finish of marble, tile and bronze; site 43x71 feet; cost, including site, about \$500,000; architect will supervise construction.

Tenn., Tracey City.—Wampunola Tribe No. 90, Improved Order of Red Men, will erect office, store and lodge building. (See "Association and Fraternal.")

Tex., Corpus Christi.—W. W. Jones will erect store and office building. (See "Stores.")

Tex., Galveston.—Hugh Hamilton, Houston, Tex., will erect office building at 25th and Mechanic Sts.; six stories; reinforced concrete; cost \$45,000.

Tex., Orange.—H. J. L. Stark is reported as conferring with architect as to plans for office and opera-house building. (See "Theaters.")

Tex., Petty.—Citizens' National Bank, B. Poteet, assistant cashier, contemplates erection of building. (See "Machinery Wanted.")

Tex., San Antonio.—National Bank of Commerce will not erect building as recently reported.

Tex., Westhoff.—First State Bank will erect brick bank building.

W. Va., Franklin.—Bank of Pendleton contemplates remodeling and enlarging bank building.

CHURCHES

Ala., Ashland.—Baptist Church is considering plans by R. H. Hunt, Chattanooga, Tenn., for edifice; cost \$10,000; further information obtainable from B. W. Pruet or R. G. Rowland, both of Ashland.

Ala., Piedmont.—Methodist Church, Rev. D. C. McNutt, pastor, will probably open bids in two months to erect edifice and Sunday-school room; electric lighting; cost \$8000 to \$12,000; steel or slate roof. (Recently noted.)

Ark., Fordyce.—Presbyterian congregation will erect edifice to cost \$25,000; pipe organ will be installed. Address The Pastor, Presbyterian Church.

Ark., Fort Smith.—St. Joseph's Catholic Church will erect brick edifice as memorial to Rev. J. M. Lucey. Address the building committee, St. Joseph's Catholic Church.

D. C., Washington.—Infant Baptist Church will erect edifice at Alfred and Duke Sts. to be known as John T. Nalls Memorial Building. Address The Pastor, Infant Baptist Church.

Ga., Gainesville.—Grace Church plans to erect edifice; 45x125 feet. Address The Rector, Grace Church.

Ky., Adairsville.—Baptist Church, Rev. W. E. Mitchell, pastor, will expend \$12,000 to erect edifice; 40x80 feet; steam heat; asbestos roof; architect not selected. (Recently noted.)

Ky., Louisville.—German Methodist Episcopal Church will erect addition to edifice at 18th St. and Ormsby Ave.; frame; cost \$3500. Address The Pastor, German Methodist Episcopal Church.

Ky., Middlesboro.—Baptist congregation will erect church to cost \$20,000. Address The Pastor, Baptist Church.

Md., Baltimore.—St. Joseph's Roman Catholic Church, Rev. Dennis M. McCormick, pastor, 404 S. Sharp St., will erect edifice to replace Lee Street Baptist Church; granite; cost \$60,000.

Md., Baltimore.—Emmanuel Protestant Episcopal Church, Rev. Hugh Birkhead, rector, 18 W. Read St., is having plans prepared by Cram, Goodhue & Ferguson, 2 W. 47th St., New York, for improvements to edifice at Cathedral and Read Sts.; plan is to change location of choir, connect two organs by electricity so one performer can operate both instruments, etc.

Miss., Marks.—Baptist Church will erect building to cost \$8000. Address The Pastor, Baptist Church.

Mo., St. Louis.—Cupples Memorial Methodist Episcopal Church (recently University Methodist Episcopal Church South) has plans to erect edifice and chapel at Washington and Trinity Bldgs.; Gothic style; auditorium to seat 800; \$50,000 chapel to seat 400; to contain pastor's study; two offices; kitchen and dining-room; ladies' parlors and gymnasium; total cost, \$150,000; plans by Albert B. Groves, St. Louis; Rev. Elmer T. Clark, pastor.

N. C., Charlotte.—Presbyterian Church, Rev. W. E. Furr, pastor, purchased site at Davidson and Ninth Sts., and will erect edifice.

N. C., Winston.—First Baptist Church, Rev. C. W. Blanchard, pastor, will erect edifice.

N. C., Dunn.—Methodist congregation, A. L. Newberry, chairman building committee, will expend \$20,000 to erect edifice; plans not determined; desires to correspond with material men and probably architects. (Recently noted at Dunn, S. C.)

Okla., Caddo.—Christian Church is having plans prepared for brick church to cost \$3000. Address The Pastor, Christian Church.

Tex., Chillicothe.—J. J. Creighton will receive bids until March 10 to erect brick-veneer church building; R. H. Stuckey, architect, Chillicothe.

Tex., Port Arthur.—Trinity Methodist Episcopal Church will not at present erect edifice as recently reported.

Tex., San Antonio.—South Heights Baptist Church will erect edifice at Hackberry and Indiana Sts. Address The Pastor, South Heights Baptist Church.

Tex., Sherman.—First Baptist Church will erect edifice at Travis and Cherry Sts.; cost \$100,000. Address The Pastor, First Baptist Church.

Va., Heathsville.—Corinth Methodist Episcopal Church, Rev. J. Elmer Hearn, pastor, will erect edifice.

Va., Norfolk.—Park Place Baptist Church opened bids to erect edifice; S. B. Williamson, Norfolk, Va., is lowest bidder at \$39,169; brick; terra-cotta trimmings; plans by G. W. Kramer, 1 Madison Ave., New York. (Recently noted.)

Va., Richmond.—Grace Street Presbyterian Church is reported as considering erection of church and manse. Address The Pastor, Grace Street Presbyterian Church.

W. Va., Fairmont.—First Presbyterian Church, Rev. H. G. Stoeter, pastor, will erect edifice on Barny St.; cost \$22,500.

W. Va., Franklin.—Methodist Episcopal church South will erect Sunday-school room. Address The Pastor, Methodist Episcopal Church South.

W. Va., Wheeling.—Second United Presbyterian Church, Rev. J. H. Littell, pastor, accepted plans by F. F. Faris, Wheeling, for edifice at 14th and Chapline Sts.; cost \$40,000. (Previously noted.)

CITY AND COUNTY

Ala., Jasper.—Jail.—Walker County Commissioners will receive bids addressed to J. W. Shepherd, probate judge, until April 10 to erect jail; separate bids for furnishing jail steel; certified check for \$500; plans and specifications at office of Judge Shepherd, Jasper, and Smith & Carter, architects, Montgomery, Ala., call for fireproof structure; steam heat; electric lights; accommodations for 125 prisoners. (Recently noted.)

Ark., Ashdown.—Jail.—Little River county has plans by Frank M. Blaisdell, Little Rock, Ark., for jail; steel and concrete; fireproof; cost \$10,000. (Recently noted.)

Ark., Fordyce.—Jail.—Quorum Court of Dallas County appropriated \$20,000 to erect jail.

Ark., Gravette.—City Hall.—City is reported as considering erection of city hall and courthouse and jail and improving temporary jail.

Fla., Tampa.—Woman's Building.—Hillsborough County Commissioners, J. L. Hackney, chairman, is considering erection of brick building for women at county poor farm instead of frame structure, as recently planned.

Ga., Alamo.—Jail.—Wheeler county will vote March 24 on \$50,000 bond issue for public buildings; William B. Kent, ordinary. (See "Courthouses.")

La., Lake Charles.—Jail.—Beauregard Parish Police Jury is considering erection of auditorium. Address The Mayor.

Okla., Hennessey.—City Hall, etc.—City will expend \$12,000 to erect city hall, jail, courthouse and opera-house building; 50x102 feet; fireproof construction; steam heat; gravel roof; plans by R. W. Shaw, Enid, Okla.; bids opened March 6. (Recently noted.)

Tenn., Chattanooga.—Pavilion.—City will erect pavilion in Houston Park. Address The Mayor.

Tenn., Jackson.—Municipal.—Merchants and Manufacturers' Association is promoting campaign to erect city hall; cost about \$100,000.

Tex., Fort Worth.—Hospital.—City and Tarrant county approved purchase of site at 4th and Jones St. for city and county hos-

pital to cost \$40,000; Mayor W. D. Davis, Fort Worth, chairman of committee.

Tex., Palestine.—Sanitarium.—City Commissioners contemplate calling election to vote on bond issue to erect sanitarium.

Va., Christiansburg.—Jail, etc.—Proposals for construction of Montgomery county's jail and jailer's residence received by G. R. Ragan, architect, 613 Watt & Blay Bldg., Roanoke, Va., until 2 P. M. March 22; plans and specifications obtainable by applying at architect's office and depositing check for \$25; certified check for \$500, payable to George Wilson, Clerk. (Recently noted.)

Va., Petersburg.—Armory.—Public Improvement Committee of City Council will recommend appropriation of \$30,000 to erect armory; H. L. Smith, J. B. Price, Harris Donnan and G. C. Wright, committee. (Recently noted.)

COURTHOUSES

Fla., Madison.—Madison County Commissioners, J. E. Hardee, chairman, will soon select plans for courthouse; cost \$60,000; construction bids will be advertised for when plans accepted. (Bond issue recently noted.)

Ga., Alamo.—Wheeler county will vote March 24 on \$50,000 bond issue to erect public buildings; is having plans prepared by H. P. Crutchfield, Savannah, Ga., for \$30,000 courthouse; William B. Kent, ordinary. (Recently noted.)

La., Lake Charles.—Beauregard Parish Police Jury is considering temporary jail building and erecting new courthouse and jail.

Okla., Bartlesville.—J. C. Mitchell, County Clerk, rejected all bids to erect courthouse, and will probably receive new bids in six weeks. (Recently noted.)

Okla., Hennessey.—City has plans for courthouse, etc. (See "City and County.")

DWELLINGS

Ala., Birmingham.—Henry Westall will erect two-story brick-veneer dwelling at Iroquois and Pawnee Sts.; cost \$7000.

Ala., Birmingham.—W. G. Tyler, 2167 Third Ave., will expend \$7000 to erect two eight-room dwellings; two stories; brick veneer; hot-air heat; electric lighting; probably vulcanite shingle roof; no contract. (Recently noted under "Stores.")

Ala., Birmingham.—Mrs. P. P. Covington will erect one-story frame building at 1409 30th St.; cost \$3500.

Ala., Gadsden.—Ike Keller will erect residence on South 5th St.

Ala., Mobile.—John G. Brown, care Battle House, will erect 15 bungalows in Mobile county.

Ark., Little Rock.—J. M. Rouse & Son, 1863 Griffith St., have plans by R. P. Morrison, 620 State Bank Bldg., for two residences; 28x32 feet and 25x42 feet; two stories; frame and stucco; shingle roof; cost \$3200 and \$3300, respectively; construction by owner. (Recently noted.)

D. C., Washington.—Mrs. C. V. Riley has plans by Appleton P. Clark, Jr., 816 14th St. N. W., Washington, for residence at 2141 Leroy Place N. W.; three stories; colonial; brick; 35x70 feet; 16 rooms and six baths; cost \$23,800.

Fla., Jacksonville.—A. L. McDaniel will erect two-story frame dwellings on Silver St. between 3d and 4th Sts.; cost \$5500.

Fla., Jacksonville.—G. W. Smith will erect one-story frame dwelling on Post St. between Osceola and Copeland Sts.; cost \$3000.

Fla., Jacksonville.—James D. Burbridge will, it is reported, erect dwelling.

Fla., Jacksonville.—Jere S. Smith will, it is reported, erect residence.

Fla., Jacksonville.—Al. Bryan, Cleveland, O., will, it is reported, erect bungalow.

Fla., Lakeland.—Methodist church has plans by I. L. Lytle, Lakeland, for parsonage; 10 rooms; shingle roof; cost \$4000; bids opened February 25. (Recently noted.)

Fla., Miami.—H. J. Luders, Chicago, Ill., it is reported, will erect residence in Bayoune Place to cost \$10,000 and garage in rear to cost \$2000; former to be reinforced concrete; 10 rooms; two baths; tile roof; garage to be two stories.

Fla., Miami.—George Orr will erect concrete bungalow; cost \$3500.

Fla., Miami.—Charles W. Lee, Chicago, Ill., it is reported, will construct seawall and erect winter residence.

Fla., Miami.—Charles T. Plummer, Redland, Fla., will erect residence.

Fla., Miami.—Dr. Henry B. Hollan, Chicago, Ill., it is reported, will erect residence on 20th St.

Fla., Miami.—E. F. Boss will erect winter residence.

Fla., Miami.—Mr. McRoberts of St. Louis, Mo., is having plans prepared by August Geiger, Miami, for residence on Kathryn Ave.; eight rooms and bath; concrete stuccoed white; red tile roof; two-story 12-foot reinforced concrete screened porch in front; one-story 12-foot reinforced concrete screened and latticed porch in rear; cost \$7000.

Ga., Atlanta.—I. N. Ragsdale will erect two one-story frame dwellings on Allen Ave.; total cost, \$4000.

Ga., Atlanta.—Dillon-Morris Company will erect two one-story frame dwellings at 25-47 Westwood Ave.; cost \$7000; day labor.

Ga., Atlanta.—F. S. Dean opens bids March 8 to erect residence; ordinary construction; vapor heat; slate roof; cost \$16,500; plans by A. Ten Eyck Brown, 607 Forsythe Bldg., Atlanta. (Recently noted.)

Ga., Atlanta.—C. F. Rodgers will erect two-story frame dwelling at 173 Holderness St.; cost \$3500; day labor.

Ga., Augusta.—Mrs. J. H. Schweers will erect residence at Monte Sano Ave. and Helen St.; two stories; stucco; cost \$10,000.

Ga., Augusta.—Mrs. Alice Hunt will erect two two-story dwellings on Henry St.; cost \$4900 each.

Ga., Columbus.—Harry Williams will erect residence on Wynnton-Macon Rd.

Ga., Columbus.—Bunn Hill will erect dwelling; cost \$3000.

Ga., Columbus.—Mack Dexter will erect residence on Buena Vista Rd.

Ga., Macon.—Bibb Manufacturing Co. will erect 16 frame cottages; cost \$12,800.

Ga., Macon.—H. A. Shouse will erect residence; frame; cost \$3000.

Ga., Macon.—C. P. Lucas will erect residence; frame; cost \$3000.

Ga., Savannah.—Frank Herman will erect dwelling at 40th and Burroughs Sts.; cement block; metal roof.

Ga., Savannah.—Fairhope Land Co., A. B. Offenbacher, general manager, Savannah Bank & Trust Co. Bldg., plans to erect residences, etc. (See "Land Developments.")

Ga., Savannah.—D. Kirkland will erect brick and cement residence on 45th St. East.

Ga., Savannah.—William Swoll Sawyer will erect 24 one-story frame dwellings; four rooms and bath each; metal roofs.

Ga., Savannah.—C. O. Widmark will erect two-story frame dwelling on 32d St.; metal roof.

Ky., Louisville.—E. S. Davidson will erect frame dwelling at 215 S. Hite St.; cost \$3000.

Ky., Louisville.—Frank Otte will erect two-story brick residence at 1890 Deerwood Ave.; cost \$3000.

Ky., Louisville.—Charles Clarkson will erect two-story frame residence at 675 Cecil Ave.; cost \$3000.

Ky., Louisville.—George Herbert Gray & Hermann Wischmeyer, 708 Louisville Trust Bldg., Louisville, are preparing plans for fireproof residence; tapestry brick; hardwood finish; hot-water heat; vacuum cleaners, etc.; also preparing plans for several other dwellings of brick and hollow-tile construction.

Ky., Louisville.—August Kinkle will erect frame dwelling on Grand Ave.; cost \$3500.

Ky., Louisville.—Emma Kern will erect two frame cottages at 2905-13 W. Kentucky St.; total cost \$3000.

Ky., Louisville.—George W. Grant will erect six frame cottages at 1432-42 32d St. to cost \$950 each; two frame dwellings at 1224-26 Beech St. to cost \$1600 each, and one dwelling at 1228 Beech St. to cost \$1400.

La., New Orleans.—C. T. Fletcher will erect four double cottages on Robertson St.; cost \$3000.

La., New Orleans.—N. B. Wayne will erect one-story frame residence on Pritchard Pl.; cost \$4000.

La., New Orleans.—W. J. Kelly will erect double two-story residence on Napoleon Ave.; cost \$3200.

La., New Orleans.—M. S. Haspel will erect one single and two double two-story residences on Louisiana Ave.; cost \$9000.

La., New Orleans.—Metropolitan Building Co. will erect two-story residence on Alexander St.; cost \$4000.

Md., Baltimore.—Mrs. Allan MacSherry is having plans prepared by Edward L. Palmer, Jr., 408 Roland Ave., Roland Park, Md., for residence on Charicote Rd.; two and a half stories; white stucco residence; slate roof; hot-water heat; electric lights; cost \$10,000.

Md., Baltimore.—M. Fillmore Carter, Mt.

Holly and Windsor Aves., will erect 15 dwellings on Allendale St. and two on Chelsea Ave.

Md., Baltimore.—Henry F. Baker is having plans prepared by Edward L. Palmer, Jr., Roland Ave., Roland Park, Md., for residence at Guilford; two and a half stories; brick; hot-water heat; electric lights; slate roof; cost \$15,000. (Recently noted.)

Md., Baltimore.—Piel Construction Co., 2519 Edmondson Ave., will erect 44 dwellings on Harlem Ave. between Wheeler and Warwick Aves., 24.6x40 feet, and one 26x40 feet, eight rooms, cost \$3000 each; 20 in 2600 block of Edmondson Ave., 16x55 feet, seven rooms, cost \$2500 each, and 25 in 2700 block Edmondson Ave., 14x55 feet, six rooms, cost \$2000 each; two stories; brick; porch fronts; plans and construction by owner.

Md., Baltimore.—Walter L. Goldman, Woodbourne Ave. near Ready Ave., will erect seven two-story dwellings at Gorsuch Ave. and Independence St.

Md., Braddock Heights.—Morris T. De Lauter will erect bungalow facing National Pike.

Miss., Marks.—M. I. Marks has plans by M. M. Alsop, Houston, Miss., to erect bungalow.

Mo., Kansas City.—J. G. Goodwin will erect stucco dwelling at 5224 Oak St.; cost \$9000.

Mo., Kansas City.—Wells Bros. will erect three frame dwellings at 4030-32-36 Garfield St.; cost \$2000 each.

Mo., Kansas City.—B. A. Bowmaster will erect three stucco dwellings at 1701, 1703 and 1707 E. 41st St.; total cost \$7500.

Mo., Kansas City.—L. W. Smith will erect two frame dwellings at 3536 and 3538 Montgall St.; total cost \$4000.

Mo., St. Louis.—Frank L. Dittmeier will erect one-and-a-half-story brick cottage on Amherst terrace for client.

Mo., St. Louis.—Catherine Fedder will erect four one-story dwellings at 2831-33-35-39 Abner St.; cost \$8000.

Mo., St. Louis.—R. B. Pratt, 3117 N. Newstead Ave., will expend \$2800 to erect two dwellings; 25x34 feet; brick; ordinary construction; slate roof; construction by owner. (Recently noted.)

Mo., St. Louis.—Hoose-Brandt Realty Co. will erect three bungalows on Natural Bridge Ave.

Mo., St. Louis.—Joseph L. Wyland will erect dwelling at 5830 DeGiverville St.; two stories; cost \$3500.

Mo., St. Louis.—John J. McMahon will erect two-story dwelling at 5909 DeGiverville St.; cost \$3500.

Mo., St. Louis.—Sam Koplar will erect four one-story dwellings at 4945-49-53-57 Columbia St.; cost \$12,000.

Mo., St. Louis.—Ernest J. Hess, Leathe Bldg., 7th and Chestnut Sts., will expend \$3500 each to erect several residences; 25x34 feet; two stories and attic; hot-water heat; tile roof; plans and construction by owner. (Recently noted.)

Mo., St. Louis.—Lemur Investment Co. will erect four two-story dwellings at 2556-58-62-64 Alcott St.; cost \$10,000.

Mo., Webster Groves.—Jesse Williams will erect residence.

N. C., Gastonia.—Chapel Lutheran Church, Rev. M. A. Ashby, pastor, will erect parsonage; two stories; frame; seven or eight rooms.

N. C., Greensboro.—Dr. Edmund Harrison will erect residence on Park Drive; cost \$6000.

N. C., Greensboro.—A. Y. Bond will erect two dwellings at Waluman St. and Fisher Ave.; cost \$3500 each.

N. C., Greensboro.—J. T. B. Shaw will erect \$3500 residence.

N. C., Spencer.—L. T. Royal, Washington, N. C., will erect bungalows on Henderson St. to cost about \$10,000.

N. C., Maysville.—Frank Mattocks will erect residence.

N. C., Maysville.—George E. Weeks will erect residence.

N. C., Rocky Mount.—Peter Knight opens bids March 20 through architect Harry R. Wagner, Rocky Mount, to erect dwelling; 34x26 feet; stucco and cement construction; hot-air heat; electric lighting; slate roof; cost \$4000.

N. C., Rocky Mount.—J. M. Fox opens bids March 8 to erect dwelling; 36x55 feet; ordinary construction; hot-water heat; electric lighting; shingle roof; cost \$5000; plans by Harry R. Wagner, Rocky Mount.

N. C., Wilmington.—W. A. Cannon of Garysburg Manufacturing Co., Burgaw, N. C., will erect \$3000 residence in Sunset Park.

N. C., Wilmington.—J. J. McNeal of Garysburg Manufacturing Co., Burgaw, N. C., will erect \$3500 residence in Sunset Park.

N. C., Tarboro.—R. Denton opens bids March 10 through architect Harry R. Wagner, Rocky Mount, to erect residence; 42x66 feet; ordinary construction; fireplaces; gas and electric lighting; slate roof.

Okla., Cushing.—W. M. Robertson contemplates erection of dwelling.

Okla., Tulsa.—Dr. Mary S. McPike will erect two-story frame residence, to cost \$2500, and barn on S. Baltimore St., to cost \$200.

S. C., Anderson.—J. E. Barton will erect seven or eight residences; cost \$2500 each.

Tenn., Gallatin.—Leslie Ross, Nashville, Tenn., will erect four dwellings.

Tenn., Harriman.—J. N. Baker, Rockwood, Tenn., will erect \$10,000 residence.

Tenn., Memphis.—O. C. Moore will erect residence at 216 N. McLean Blvd.; cost \$3800.

Tenn., Memphis.—C. E. Coe is having plans prepared by Jones & Furbinger, Memphis, for residence at Highland and Carnes Aves.; red brick; frontage 110 feet.

Tenn., Nashville.—R. N. Goodall will erect residence at 1500 Acklen Ave.; cost \$4000.

Tenn., Nashville.—R. M. Goodall will erect residence at 1500 Avalyn Ave.; cost \$4000.

Tex., Alvin.—T. J. McCormick will erect four additional residences north of depot.

Tex., Caldwell.—A. M. Barta will erect dwelling.

Tex., Caldwell.—Arthur Perkins will erect residence.

Tex., Caldwell.—P. H. Simpson will erect residence to cost \$3000.

Tex., Caldwell.—Dr. A. H. Foster will erect dwelling; cost \$3000.

Tex., Chareo.—John McSwain will erect residence.

Tex., Chareo.—Deputy Sheriff McCarny will erect residence.

Tex., Cuero.—Charles Fuess will erect residence.

Tex., Devine.—W. M. Williamson will erect residence.

Tex., El Paso.—Miss Margaret del Bueno is having plans prepared by S. E. Patton, El Paso, for two-story dwelling at 909 Myrtle Ave.; 10 rooms; cost \$5200.

Tex., El Paso.—Heymen Krupp opens bids about March 15 to erect dwelling; 40x50 feet; ordinary construction; hot-water heat; asbestos roof; cost \$10,000; plans by Gibson & Robertson, 325 Herald Bldg., El Paso, to whom proposals may be addressed.

Tex., Floresville.—W. H. Mitchell contemplates erection of dwelling.

Tex., Galveston.—Brewer W. Key will erect residence; cost \$35,000.

Tex., Houston.—J. A. Wilkins will erect 10-room residence on Anita St.; cost \$4000.

Tex., Houston.—L. F. Meador will erect five-room residence on Highland St.; cost \$3000.

Tex., Liberty Hill.—T. M. Casbeer will erect bungalow.

Tex., Lubbock.—W. B. Atkin, manager of McAdams Lumber Co., will erect residence.

Tex., San Antonio.—J. M. Bennett will erect two-story dwelling on W. Dewey Pl.; cost \$8800.

Tex., San Antonio.—J. E. Wells will erect two-story dwelling on Woodlawn Ave.; cost \$5000.

Tex., Wharton.—H. W. Nott will erect dwelling in Barbee addition.

Va., Graham.—Mrs. Sallie Litz will erect residence.

Va., Richmond.—J. B. Mosby, trustee for L. J. Mosby, will erect two detached two-story brick dwellings on Grace St. between Davis Ave. and Addison St., and on Davis Ave. between Grace St. and Monument Ave.; cost \$15,675.

Va., Richmond.—Grace Street Presbyterian Church is reported as considering erection of church and manse. Address The Pastor, Grace Street Presbyterian Church.

Va., Richmond.—R. B. and C. E. Miller will erect building to contain two stores and dwelling at 606-608 W. Broad St.; three stories; brick; cost \$11,000.

Va., Roanoke.—D. C. Wood, 213 Tenth Ave., will expend \$5000 to erect dwelling; 28x43 feet; two stories; 10 rooms; frame and brick veneered; hot-water heat; electric lighting; slate roof; plans and construction by owner. (Recently noted.)

Va., Roanoke.—W. S. Amott will expend \$3200 to erect two dwellings; 6 and 8 rooms each; ordinary construction; grates; shingle

roof; construction under supervision of owner. (Recently noted.)

W. Va., Charles Town.—J. W. Harper will erect residence.

W. Va., Huntington.—Mrs. Sophie Boren will erect brick residence.

W. Va., Warwood.—R. B. Robinson will erect two residences, one on 8th and one on 9th St.

GOVERNMENT AND STATE

Ky., Lawrenceburg.—Postoffice.—Treasury Department, Office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until April 8 for construction complete (including plumbing, gas piping, heating apparatus, electric conduit and wiring and lighting fixtures) of United States postoffice; two stories and basement; ground area of about 4000 square feet; fireproof construction, except roof; brick and stone facing; tin roof; drawings and specifications obtainable from custodian of site or at this office at discretion of supervising architect.

Mo., Boonville.—Postoffice.—Treasury Department, Office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until April 11 for construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of United States postoffice; 46x88 feet; one story and basement; stone exterior; fireproof interior; roof framing of wood construction covered with composition roofing; hardwood interior finish, plaster and marble, etc.; low-pressure steam heat; drawings and specifications obtainable from Richards, McCarty & Bulford, architects, Hartman Bldg., Columbus, O., or from custodian at site, or at this office, at discretion of supervising architect.

N. C., Oxford.—Postoffice.—Treasury Department, Office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until April 26 for construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of United States postoffice; one story, with mezzanine at each end and partially excavated basement; ground area of about 2800 square feet; first floor fireproof; stone and brick facing; tin roof; drawings and specifications obtainable from custodian at site or at this office, at discretion of supervising architect; drawings, etc., ready for delivery March 15.

Tex., Fort Bliss.—Hospital.—Government rejected all bids to erect addition to post hospital; Capt. A. P. Watts, Constructing Quartermaster. (Recently noted.)

Va., Covington.—Postoffice.—Treasury Department, Office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until April 29 for construction complete (including plumbing, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of United States postoffice; one story and basement, with mezzanine at each end; ground area of about 3800 square feet; first floor fireproof; stone and brick facing; tin roof; drawings and specifications obtainable from custodian at site or at this office, at discretion of supervising architect, and will be ready for delivery March 15.

HOTELS

Ark., Dermott.—Charles T. Duke and J. Lee Allen, both of Monticello, Ark.; E. E. Barlow and Henry Bordeaux, both of McDermott, and others are promoting erection of hotel and store building; fireproof; two stories; 81 bedrooms; five stores on first floor; lobby 50x60 feet; entire structure 140x200 feet; steam heat; cost about \$6000; is having plans prepared by John B. Scott, Little Rock, Ark.

Fla., St. Petersburg.—Noel A. Mitchell is reported as to have plans by George W. Stewart for hotel at 4th St. and Central Ave., and five-story store and hotel building adjoining; main building 100x50 feet; roof garden.

Ga., Columbus.—Columbus Georgia Hotel Co., J. Ralston Cargill, president, secured funds to erect hotel; cost \$200,000; plans by Ludlow & Peabody, 12 W. 31st St., New York. (Previously noted.)

Ga., Savannah.—Fairhope Land Co., A. B. Offenbacher, general manager, Savannah Bank & Trust Bldg., plans to erect 54-room hotel, etc. (See "Land Developments.")

Ky., Paducah.—Joseph L. Friedman, president Palmer Hotel Co., states plans are not definite for erection of Palmer House. (Recently noted at Louisville, Ky.)

Md., Baltimore.—James L. Kernan Com-

pany, Frederick C. Schanberger, president, Franklin St. near Howard St., is reported to erect five additional stories of reinforced concrete to Kernan Hotel, increasing capacity to about 350 rooms; will provide show kitchen adjoining dining-room and enclosed in glass, repaper and recarpet rooms, install some new furniture, install telephone booths, telegraphers' quarters, construct ornamental bronze and glass marquees in front of hotel and Maryland Theater, etc.; is having plans for exterior improvements prepared by J. D. Allen, Deuckler Bldg., Philadelphia, Pa.

Md., Thurmont.—L. R. Waesche will remodel former high-school building; will erect two additional stories to provide three stories; two lower floors of brick, upper floor frame, etc.; will lease to Isaac Hahn of Pen-Mar, Pa., for hotel.

Miss., Meridian.—Walter G. Hodges, trustee, purchased site on 4th and Front Sts. for hotel; seven stories; 150 rooms; cost \$150,000.

Mo., Joplin.—Mrs. John H. Taylor is having plans prepared by Austin Allen, Joplin, for hotel; 100 rooms; 100x120 feet; cost \$125,000.

N. C., Greensboro.—Guilford Hotel Co., capital stock \$15,000, incorporated by A. H. Galloway of Winston-Salem, N. C.; W. G. Tennille and A. M. Scales of Greensboro. (Travelers' Hotel Co. recently noted to remodel Guilford Hotel, but company states plans are indefinitely postponed.)

Tenn., Knoxville.—O. A. McClintock leased Hotel Imperial and will, it is reported, expend \$6000 for improvements and furnishings; will install hot and cold water in all rooms, additional baths, etc.

Tenn., Nashville.—Louis Blum purchased building at 591-593 Third Ave. for \$14,750; will remodel and add 20 rooms for hotel purposes.

Tex., Sinton.—J. T. Sisco and W. M. Pittman open bids about April 15 to rebuild rooming-house and store recently reported burned. (See "Stores.")

Va., Richmond.—W. Lee Davis is having plans prepared by Carneal & Johnston, Richmond, for hotel to replace Davis Hotel; seven stories; steel; fireproof; 65x100 feet; steam heat; electric lighting; details not arranged.

W. Va., Richwood.—J. H. Kincaid may be addressed relative to erection of 40x50-foot three-story hotel.

MISCELLANEOUS

Ala., Birmingham.—Clubhouse.—Southern Club, T. O. Smith, president, plans to erect additional story to clubhouse at cost of \$15,000; for which plans are being prepared by Harry B. Wheelock, Birmingham. (Recently noted.)

Ala., Fort Payne.—Chautauqua.—Chautauqua Association, W. F. Thetford, president, will erect building, etc.

Ala., Montgomery.—Clubhouse.—Montgomery Country Club will expend \$5000 for improvements; will erect rain sheds on golf course, improve grounds, double size of ball-room, enlarge dining-room, etc.

Ky., Pikeville.—Hospital.—Dr. W. J. Walters, M. Pinson, W. A. Campbell and others are interested in organization of company to erect hospital; 25 rooms; brick.

La., New Orleans.—Turkish Baths.—Alhambra Baths, Inc., will expend \$35,000 to remodel three-story 30x150-foot building for Turkish bath purposes; plans being prepared by Sam Stone, Jr., 714 Union St., New Orleans. (Vincent & Hayne recently noted as having leased building to New Orleans Turkish Bath Operating Co.)

Md., Baltimore.—Hall.—Germania Maennerchor opened bids to erect clubhouse and hall to replace Lehman's Hall on Howard St.; J. L. Robinson Construction Co., Knickerbocker Bldg., Baltimore, and Willard E. Harn Co., 213 N. Calvert St., both of Baltimore, are lowest bidders; plans by Walter M. Gieske, 66 Gunther Bldg., Baltimore. (Previously noted.)

Miss., Marks.—Auditorium.—L. Marks & Sons will erect store and office building to contain auditorium. (See "Stores.")

Mo., St. Louis.—Toolhouse.—William J. Lemp Brewing Co. will expend \$8000 to improve toolhouse at 334 S. 18th St.

Mo., St. Louis.—Hall.—Gravois Hall Association Co. will erect store and hall. (See "Stores.")

N. C., Durham.—Barracks.—Salvation Army will erect barracks.

N. C., Fuquay Springs.—Town Hall.—A. W. Thompson, Durham, N. C., will erect store and town hall building. (See "Stores.")

N. C., Hendersonville.—Home.—G. C. Ham-

mond, Greenwood, S. C., will expend \$15,000 to improve old school property and convert into summer home; will remodel school building into boarding-house and later is reported to erect cottages, etc.; is having plans prepared by H. C. Meyer.

Tenn., Nashville.—Citadel.—Salvation Army, David E. Dunham, Brigadier-General, Divisional Office, 114 E. 8th St., Cincinnati, O., will probably have plans prepared for citadel in a month. (Recently noted to cost \$60,000.)

Tex., Cameron.—Hospital.—Dr. W. R. Newton desires to correspond with contractors relative to erection of hospital; three stories; brick; fireproof; steam heat; cost \$40,000; plans by George Burnett, Waco, Tex.; bids opened March 15. (Recently noted.)

Tex., Palestine.—Morgue, etc.—P. B. Ezell will erect morgue and undertaking establishment at John and Crawford Sts.; two stories; brick.

RAILWAY STATIONS, SHEDS, ETC.

Ark., Blytheville.—St. Louis & San Francisco Railroad, M. C. Byers, chief engineer, Springfield, Mo., and Jonesboro, Lake City & Eastern Railroad, W. H. Smith, general manager, Jonesboro, Ark., will erect union depot.

Ark., Dermott.—St. Louis, Iron Mountain & Southern Railroad Co., J. R. Stephens, chief engineer, St. Louis, Mo., will erect depot to replace structure recently reported burned at loss of \$40,000.

Ga., Savannah.—Fairhope Land Co., A. B. Offenbacher, general manager, Savannah Bank & Trust Co. Bldg., plans to erect railroad station, etc. (See "Land Development.")

N. C., Raleigh.—Norfolk Southern Railroad, F. L. Nicholson, chief engineer, Norfolk, Va., is reported as to erect cotton platform 60x350 feet and freight depot 37x350 feet, with 8-foot platform on both sides.

Tex., Slaton.—Gulf, Colorado & Santa Fe Railway Co., F. Merritt, chief engineer, Galveston, Tex., will erect station; concrete; two stories and basement.

Va., Springfield.—Southern Railway Co., B. Herman, chief engineer, 1200 Pennsylvania Ave., Washington, D. C., will erect addition to depot.

W. Va., Terra Alta.—Baltimore & Ohio Railroad Co., F. L. Stuart, chief engineer, Baltimore and Charles Sts., Baltimore, Md., contemplates erection of \$30,000 passenger and freight depot out of proposed \$63,250,000 of bonds, issuance of which is planned.

W. Va., Martinsburg.—Baltimore & Ohio Railroad Co., F. L. Stuart, chief engineer, Baltimore and Charles Sts., Baltimore, Md., contemplates erection of \$25,000 station out of proposed \$63,250,000 of bonds, issuance of which is planned.

SCHOOLS

Ala., Demopolis.—City will erect \$5,000 school to replace structure reported burned at loss of \$15,000. Address The Mayor.

Ala., Eclectic.—State will rebuild Elmore County High School reported burned at loss of \$12,000; H. J. Willingham, State Superintendent of Education, Montgomery, Ala.

Ala., Selma.—School Board opens bids March 8 to erect high school according to plans by William T. Warren of Birmingham, Ala.; three stories; 120x80 feet; 15 rooms and auditorium to seat 700; reinforced concrete floors in corridor; fan-blast heating system; asbestos shingle or slate roof; steel-truss roof over auditorium; brick and stone trimmings; cost \$35,000. (Recently noted.)

Ga., Savannah.—Fairhope Land Co., A. B. Offenbacher, general manager, Savannah Bank & Trust Co. Bldg., plans to erect cottage system of schoolhouses, etc. (See "Land Development.")

Ky., Covington.—St. Patrick's parish, Rev. T. J. McCaffrey, pastor, is having plans prepared by David Davis, 41 E. 4th St., Cincinnati, O., for school; eight classrooms, auditorium, gymnasium and assembly rooms; two stories; brick and stone; 80x100 feet; cost \$15,000; cost of equipment \$5000 additional; will award contract about April 1; Peter J. Gill, 263 W. 4th St., Covington, chairman of building committee.

Ky., Louisville.—University of Louisville, Dr. John Patterson, dean of College of Liberal Arts, plans to expend \$500,000 to erect building for College of Arts and Sciences. (Mayor W. O. Head previously noted as interested in erection of buildings for University of Louisville.)

Ky., Louisville.—Bryant & Stratton Business College (Prof. G. W. Schwartz) will erect college building; seating capacity 1500.

La., Grand Cane.—Grand Cane School District will vote on tax to erect school. Address District School Trustees. (Recently noted to rebuild structure at cost of \$15,000.)

Miss., Laurel.—City will erect school building; pressed-brick front; cost \$25,000; plans not made; F. M. Meek, Mayor.

N. C., Chapel Hill.—University of North Carolina will erect dining hall; accommodations for 600 students on ground floor and 300 in balcony; cost \$40,000; Josephus Daniels, chairman of committee, Raleigh, N. C. (Recently noted.)

N. C., Huntersville.—Huntersville School District will vote March 11 on \$20,000 bond issue for school improvements. Address District School Trustees. (Recently noted.)

N. C., Lenoir.—Davenport College will erect \$20,000 dormitory.

N. C., Raleigh.—Senator Little of Anson county introduced bill in State Senate appropriating \$30,000 to purchase site for State School for the Blind; bill also provides appropriation of \$62,500 annually for 1913 and 1914 to erect buildings; \$85,000 annually for support of school, in addition to minor appropriations; payment of appropriations to be made from sale of State bonds; Lickie Craig, Governor.

N. C., Shelby.—Piedmont High School will probably rebuild Newton dormitory recently reported burned.

N. C., Oxford.—Oxford Graded School District will vote March 29 on \$20,000 bond issue to erect school; D. G. Brummitt, Mayor.

N. C., Scotland Neck.—City will vote April 1 on \$16,000 bond issue for school improvements; J. E. Shields, Mayor.

Tenn., Alamo.—City plans to erect \$20,000 school. Address The Mayor.

Tenn., Knoxville.—Board of Education is having plans prepared by C. G. Mitchell, Johnson City, for four-room addition to Columbus Powell school to cost \$5000.

Tenn., Union City.—City will erect school building. Address The Mayor.

Tex., Clarendon.—J. S. Hayter, secretary Board of Education, may be addressed relative to erection of school; 60x80 feet; two stories and basement; ordinary brick construction; cost \$20,000; cost of heating plant, \$3000. (Recently noted to have voted \$25,000 bond issue for this purpose.)

Tex., Dallas.—City will probably vote April 1 on \$250,000 bond issue for schools. Address Board of Education.

Tex., Henderson.—School Trustees are having plans prepared by C. G. Lancaster for school building; cost \$25,000.

Tex., Houston.—City opened bids to erect South End Junior High School; G. Hartmann Construction Co. is lowest bidder at \$188,710 for Algonite stone, \$192,806 for Leuders stone, \$201,170 for Carthage stone, and \$192,900 for Bedford stone; plans by Layton & Smith, Houston. (Recently noted.)

Tex., Texarkana.—Board of Education, A. C. Stuart, president, will probably let contract within 30 days to erect school; 10 rooms; fireproof; cost \$30,000; cost of heating plant, \$2500; plans by Witt & Seibert, Texarkana.

Va., Carson.—Bids received by Dr. E. E. Powell, McKenny, Va., and W. W. Edwards, Waverly, Va., until March 6 to erect Carson High School.

Va., Petersburg.—Finance committee of City Council will recommend appropriation of \$100,000 to erect two schools for negroes.

W. Va., Parkersburg.—Parkersburg school district will vote in April on bond issue to erect high school. Address Board of Education.

STORES

Ala., Birmingham.—W. A. Lester will erect two one-story frame buildings on 23d St. between 13th and 14th Aves.; cost \$2000.

Ala., Birmingham.—Wylam Mercantile Co. will erect one-story frame building on Seventh Ave. between 43d and 44th Sts.; Wylam; cost \$2000.

Ala., Birmingham.—Paul Locosicco will erect five one-story frame buildings at Eighth Ave. and Mortimer St.; cost \$4000.

Ala., Birmingham.—W. L. Sessions will erect two-story frame building on 29th St. between Ninth and Tenth Aves.; cost \$3000.

Ala., Birmingham.—Pratt City Aerie, Fraternal Order of Eagles, will erect store and lodge building. (See "Association and Fraternal.")

Ala., Birmingham.—J. C. Beasley will erect two-story brick-vener building at Ash St. and Cliff Rd.; cost \$4500.

Ark., Ashdown.—H. G. Sanderson opens

bids March 15 to erect store and office building. (See "Bank and Office Buildings.")

Ark., DeValls Bluff.—R. H. Sanders will erect store building to replace structure recently reported burned.

Ark., Dermott.—Charles T. Duke, Monticello, Ark.; E. E. Barlow, Dermott, and others are promoting erection of hotel and store building. (See "Hotels.")

Ark., Little Rock.—J. E. Skillern opens bids March 12 to erect store and office building; 48x150 feet; ordinary construction; hot-water or steam heat; electric lighting; passenger elevator; tar and gravel roof; cost \$35,000; plans by Theodore M. Sanders, Texarkana, Ark. (Recently noted.)

Fla., Bradentown.—J. F. and W. H. Vanderveil will erect brick or stone store buildings on Manatee Ave.

Fla., Jacksonville.—N. Farris will erect building at Davis and Duval Sts.; three stories; brick; cost \$11,000.

Fla., Miami.—George Mangos will erect business block at 18th St. and Avenue D; two stories; reinforced concrete.

Fla., Starke.—Merchants' Grocery Co., J. F. Canova, manager, plans to erect store and warehouse on 9th St.

Fla., St. Petersburg.—Noel A. Mitchell is reported as having plans for hotel and store building. (See "Hotels.")

Fla., Tampa.—Mrs. V. B. Mvllvaine will erect store building to cost \$3000.

Ga., Athens.—James M. Smith purchased site at College Ave. and Washington St. and will erect business building; glass and pressed-brick fronts.

Ga., Lagrange.—H. C. Butler will expend \$6000 to erect two stores; 45x100 feet; ordinary construction; brick; electric lighting; composition roof; plans and construction by owner. (Recently noted.)

Ga., Lexington.—James M. Smith will, it is reported, erect business blocks at College Ave. and Washington St.

Ga., Macon.—S. S. Shipp will remodel stores; cost \$4000.

Ga., Rome.—W. J. Nunnally will erect brick building at Ross and Cochran Sts.; two stories; three rooms; cost \$3000.

Ga., Savannah.—M. Wilensky purchased three-story frame dwellings at 313-15 Broughton St., and will convert into stores.

Ky., Somerset.—George S. Forth will erect store and office building on Main St.; three stories; brick; lower floor for stores; upper floors for offices.

La., New Orleans.—H. Fitchberg secured permit for Richard & Miguel, owners, for alterations and repairs to building at Canal and Dauphine Sts., to cost \$5500.

Md., Baltimore.—Charles Willms, 300 N. Howard St., has plans by Owens & Sisco, Continental Bldg., Baltimore, for store building at 206-08-10 N. Howard St.; two stories; 50x120 feet; contractors estimating are John Hiltz & Son, 7 Clay St.; Charles L. Stockhausen, National Marine Bank Bldg.; J. Henry Miller, Inc., 108 Dover St.; T. L. Jones & Son, 410 W. Saratoga St.; Singer-Pentz Company, 600 Equitable Bldg.; Consolidated Engineering Co., Bromo-Seltzer Tower Bldg.; B. F. Bennett Building Co., 106 W. Madison St., all of Baltimore. (Previously noted.)

Miss., Marks.—L. Marks & Sons have plans by M. M. Alsop, Houston, Miss., to erect business block for stores on first floor and offices and auditorium on second floor; electric lights; steam heat; pressed brick.

Okla., Cherokee.—A. Gregory, Kiowa, Kans., contemplates rebuilding structure recently reported burned.

Mo., St. Louis.—N. S. Wood has plans by T. C. Lee, 10th and Olive Sts., St. Louis, for mercantile building; 25x105 feet; four stories.

Mo., St. Louis.—Gravois Hall Association Co. purchased site on Gravois Ave. and will erect store and hall building; brick construction.

Mo., St. Louis.—Pelligreen Construction Co., Nicholas Pelligreen, president, is reported as to erect store and office building; cost \$40,000.

Mo., St. Louis.—Arcon Realty Co. will erect four-story mercantile building at 27-29-31 Tyler St.; cost \$24,000; brick; cut stone; office wainscoted with white enamel; awarded contract to Bothe-Welsh Contracting Co., St. Louis; plans by Tom P. Saunt, St. Louis.

Mo., St. Louis.—E. A. Ellerman is having plans prepared by William Wedemeyer, St. Louis, for store building at 25th and Angelica Sts. and Glasgow Ave.; two stories; 115x110x35 feet; show windows on three

sides; steam heat; vacuum cleaning system; metal ceilings; cost \$25,000.

N. C., Greensboro.—North Carolina Trust Co. and Southern Real Estate Co. will erect business building on S. Davie St.; two stories; 50x100 feet; cost \$10,000.

N. C., Greensboro.—Witt Stone will erect building on Florence St.; cost \$2000.

N. C., Greensboro.—E. E. White will erect \$2000 building on Florence St.

N. C., Fuquay Springs.—A. W. Thompson, Durham, N. C., will erect two-story brick building at Main and Depot Sts.; lower floor for three stores and upper floor for town hall.

N. C., Rocky Mount.—T. C. Gorham opens bids April 15 through architect Harry R. Wagner, Rocky Mount, to erect mercantile building; 67x100 feet; ordinary construction; steam heat; electric lighting; tin roof; cost \$15,000.

Okla., Tulsa.—F. E. Moss will erect business building on Main Main St.; two stories; brick; cost \$2500.

S. C., Anderson.—Lewis Drug Co. and Martin Bros. will erect two storerooms; 22½x90 feet; brick.

S. C., Greenville.—L. A. Mills will erect business building.

Tenn., Chattanooga.—Ben Silverman will erect two-story brick building on Prospect St. between 6th and 7th Sts.; cost \$3000.

Tenn., Memphis.—Frank F. Hill has plans by Harker & Cairns, Memphis, to remodel building on Union Ave. for stores; cost about \$20,000.

Tenn., Nashville.—Home Building & Manufacturing Co. will erect brick building at Seventeenth Ave. and Edgehill St.; cost \$4000.

Tenn., Tracey City.—Wampunola Tribe No. 90, Improved Order of Red Men, will erect store, office and lodge building. (See "Association and Fraternal.")

Tex., Corpus Christi.—W. W. Jones will erect store and office building at Mesquite and Starr Sts.; six stories.

Tex., Dallas.—J. M. Cockrell will erect two-story brick building at 2614-20 Main St.; cost \$13,200.

Tex., Dallas.—T. J. Britton contemplates erection of building.

Tex., Devine.—Loggings & Lilly will erect two-story brick building on East Front St.

Tex., Dallas.—L. B. Dooley will erect three-story brick store at 2513 Floyd St.; cost \$12,000.

Tex., Galveston.—Fred. F. Hunt has plans to erect store; three stories; reinforced concrete; cost \$20,000.

Tex., Harlingen.—Loyal Order of Moose will erect lodge and store building. (See "Association and Fraternal.")

Tex., Houston.—Charles DuBard will erect store and apartment building. (See "Apartment-houses.")

Tex., Houston.—Mrs. F. B. Hite will erect one-story building on Fannin St.; cost \$10,000.

Tex., Pleasanton.—W. A. McCoy is reported as to erect brick building on Main St.

Tex., Pleasanton.—M. M. Mansfield will erect business building on Main St.; brick; 30x60 feet.

Tex., San Antonio.—Walker Moore Company opens bids about March 15 to erect wholesale grocery store; 55x142 feet; two stories and basement; fireproof construction; hand elevator; concrete and gravel roof; cost \$30,000 to \$33,000; plans by August A. Herff; proposals may be addressed to G. C. Walker, 211 Frost Bldg. (Company recently noted incorporated with \$250,000 capital stock.)

Tex., Sinton.—J. T. Sisco and W. M. Pittman open bids about April 15 to rebuild store and rooming-house; 125x70 feet; fireproof construction; tar and gravel or asbestos roof; cost \$15,000; plans and specifications ready in 30 or 40 days. (Recently reported burned.)

Va., Richmond.—R. B. and C. E. Miller will erect store and dwelling. (See "Dwellings.")

Va., Richmond.—Raab & Co. will erect business block at 1717-23 E. Main St.

W. Va., Huntington.—Mrs. Barbara Hagen will erect three-story business block on 11th St. near Third Ave.; first floor to be occupied by Hagen Plumbing Co.; cost \$10,000 to \$12,000.

THEATERS

Ark., Little Rock.—Abe Stiewel opens bids March 10 to erect theater; 64x150 feet; fireproof construction; plenum system of heat-

ing; electric lighting; tar and gravel roof; cost \$60,000; plans by Theodore M. Sanders, Little Rock. (Contract for excavation recently noted awarded.)

Md., Baltimore.—Samuel F. Nixon, Philadelphia, Pa., will erect vaudeville theater in business section; main floor and two galleries; fireproof construction; seating capacity 2500; long easy inclines will lead to galleries; pribal cost \$200,000.

N. C., Hamlet.—E. A. Lackey and others are having plans prepared for opera-house; 46x145 feet; two stories and basement; fireproof; steam heat; electric lighting; cost \$30,000; plans by C. H. Stephens, Wilmington, N. C.; no contract.

N. C., Oxford.—E. G. Crews and J. P. Harris will erect theater on Hillsboro St. opposite armory; brick; fireproof; seating capacity 650; cost \$10,000; building to be 40x80 feet; hot-water heat; electric lighting; plans by J. M. McMichael, Charlotte, N. C.; bids opened March 15. (See "Machinery Wanted.")

Okla., Hennessey.—City has plans for opera-house, etc. (See "City and County.")

S. C., Charleston.—Albert Sottile is having plans prepared by John Ebersson, Chicago, Ill., for moving-picture theater at 371-73 King St., to be leased to Pastime Amusement Co., of which Mr. Sottile is president; brick, terra-cotta and steel; fireproof; stationary organ; Roman garden interior effect; cost \$50,000; is also having plans prepared by Mr. Ebersson and D. C. Barbot, Charleston, for improvements to Victoria Theater to cost about \$25,000, and to include additional stairs, fire escapes, increased seating capacity, etc. (Noted in May.)

Tex., Fort Worth.—J. C. Ingram purchased Princess Theater property on Main St. between 10th and 11th Sts. for \$90,000; will temporarily rebuild Princess Theater and rent until completion of plans to erect building to replace present structure.

Tex., Orange.—H. J. L. Stark is reported as conferring with Henry B. Hertz, 35 W. 31st St., New York, as to plans for opera-house and office building at Front and 5th sts. (Mrs. Henry J. Luther recently reported as to erect theater on this site.)

Va., North Tazewell.—H. C. Perry will erect opera-house.

Va., Suffolk.—Suffolk Theater Co., incorporated with capital stock of \$25,000; Milton O. Spence, president; Marion L. Maties,

WAREHOUSES

Fla., Starke.—Merchants' Grocery Co., J. F. Canova, manager, plans to erect store and warehouse. (See "Stores.")

Fla., Jacksonville.—Florida Cotton Oil Co. will expend \$15,000 to \$20,000 to rebuild cottonseed warehouse to replace burned building; 50x80 feet; frame; composition roof; construction under supervision of company's engineer. (Recently noted.)

Ky., Louisville.—William Schuff & Co. have plans for warehouse, etc. (See "Miscellaneous Factories.")

Ky., Maysville.—Frank Goodwin will erect loose leaf tobacco warehouse.

Ky., Paris.—Bourbon Tobacco Warehouse Co. will expend \$10,000 to \$15,000 to erect warehouse recently noted; probably 200x100 feet; steel frame construction; electric lighting; composition roof; elevator; architect not selected. (See "Machinery Wanted.")

Md., Baltimore.—C. C. McColgan, 12 E. Lexington St., will receive bids March 8 to erect warehouse at 401 to 405 N. Calvert St.; five stories; 48x100 feet; colonial style; Martinarch brick; mill construction; cost about \$35,000; contractors estimating are John Waters, 23 E. Center St.; John Hiltz & Son, 7 Clay St.; Cowan Building Co., 106 W. Madison St.; Morrow Bros., Fidelity Bldg.; Henry Smith & Sons Company, 111 Hanover St.; B. F. Bennett Building Co., 213 S. Howard St.; William Ferguson & Bro., 214 Clay St.; plans by Jacob F. Gerwig, 600 Equitable Bldg., Baltimore. (Recently noted.)

Mo., St. Louis.—Chicago, Rock Island & Pacific Railway Co., J. B. Berry, chief engineer, Chicago, Ill., will erect public fruit auction and storage building on half block bounded by Dickson and O'Fallon Sts., Broadway and alley; 150x350 feet; auction-room with 45,000 square feet floor space; cold-storage plant covering second floor and having capacity of 750 carloads of fruit; cost \$150,000.

S. C., Greenville.—Gilreath-Durham Company is reported as to erect warehouse.

Tenn., Chattanooga.—J. P. Lupton and Z. C. Patten will erect warehouse and cold-storage plant on King St.; five stories; steel

and concrete; first three floors and basement for warehouse; two upper floors for cold storage; 100x180 feet; cost \$75,000 to \$100,000; will be occupied by Chattanooga Warehouse & Cold-Storage Co.

Tex., Houston.—F. H. Potthoff will erect warehouse; one story; brick; cost \$25,000.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ala., Birmingham.—A. C. Howze awarded contract to Utilities Construction Co., Birmingham, to erect Rosewall Apartments at 22d St. and 7th Al.; three stories and basement; 12 apartments; brick and concrete; 8x50 feet; cost \$32,500; plans by Edgar L. Love, Birmingham.

Ky., Louisville. Realty Investment Co. (Hieatt Bros., Henry M. Johnson and others) having plans prepared by William Kerr, Chicago, Ill., for apartment-house at 1244 S. 4th St.; 75 two and three-room apartments; structure will be six stories; fireproof construction; cost \$200,000; General Construction Co., contractor, Louisville.

La., New Orleans.—Walter C. Keenan, 208 Wels Bldg., will expend \$16,000 to erect two duplex apartment-houses; ordinary construction; hot-air heat; tile roof; contract awarded. (Mr. Keenan recently noted as having prepared plans for building.)

Md., Round Bay (not a postoffice).—N. P. Chapman, 806 American Bldg., Baltimore, Md., awarded contract to John H. Geis & Co. to erect bungalow apartment-house on Eagles Nest Point; plans by Mr. Buchl.

Mo., St. Louis.—C. A. Rupp awarded contract to J. F. Rupp Building & Contracting Co., St. Louis, to erect tenement-house; 22x48 feet; gravel roof. (Recently noted.)

Tenn., Nashville.—R. M. Burns will erect "Milburn" apartment-house; three stories; court faced with mat brick and limestone; slate roof; tiled corridors and bathrooms; soundproof rooms; cushioned floors; vacuum system steam heat; combination gas and electric lights; awarded following contracts: Foundation, Foster & Bush; brick work, Mims-Sneed Company; carpenter work, T. J. Christman; plumbing and heating, Kennedy & Co.; roofing, Goodrich & McTigue; plastering, Thomason & Wagner; electric work, Nashville Machine Co.; flooring, Harvey & Pride; painting and glazing, Otto Hylen; tile and marble work, H. E. Palmer; total cost \$40,000; plans by C. K. Colley, Nashville.

Va., Lynchburg.—Drs. Terrell and Lile awarded contract to W. K. Barger to erect apartment-house to replace St. Andrew's Home; three stories and basement; 12 apartments; fireproof; garage; iron stairways; cost about \$50,000; plans by Burnham & Cave, Lynchburg.

Va., Lynchburg.—Drs. Terrell and Lile awarded contract to W. K. Barger to erect apartment-house to replace St. Andrew's Home; three stories and basement; 12 apartments; fireproof; garage; iron stairways; cost about \$50,000; plans by Burnham & Cave, Lynchburg.

ASSOCIATION AND FRATERNAL

Ala., Talladega.—Ancient Free and Accepted Masons awarded contract to R. P. Farnsworth & Co., Talladega, to erect lodge building; two stories and basement; 50x120 feet; ordinary construction; electric lights; metal roof; lower floor for stores; plans by H. B. Wheelock, Birmingham, Ala. (Recently noted to have awarded contract for brick work.)

Tex., Bryan.—L. A. Plasek awarded contract at \$13,000 to erect two-story brick building; 46x115 feet; upper floor, large rooms for Benevolent Protective Order of Elks; lower floor, blacksmith shop and garage; fireproof construction. (Previously noted.)

Tex., Comanche.—Knights of Pythias Lodge awarded contract to Alec Olson, Cisco, Tex., to erect hall and mercantile building; 25x130 feet; ordinary construction; tar and gravel roof; cost \$10,000; plans by Sanguinett & Staats, Fort Worth, Tex. (Recently noted.)

BANK AND OFFICE

Ala., Dothan.—Houston National Bank awarded contract to Brown & Flowers, Dothan, to erect bank building; two stories; stone; cost \$30,000.

Ga., Washington.—Thomas M. Nabers will erect addition to store and office building. (See "Stores.")

Tex., Fort Worth.—Denver Investment Co. will erect building at 5th and Throckmorton Sts.; five stories; reinforced concrete and brick; 100x100 feet; three upper floors to be occupied by Fort Worth & Denver City Railway, and two lower floors and basement by Fort Worth Record; awarded contract to Texas Building Co., Fort Worth.

W. Va., Moundsville.—City and County Bank will remodel Roberts' Bldg. on Jeffer-

Va., Danville.—Acree Warehouse Co., M. O. Nelson, manager, has plans for addition to warehouse to increase floor space to 54,000 square feet and extend to length of 350 feet; addition 125x110 feet; mill construction; two elevators; tin roof; cost \$15,000; plans by W. K. Anderson; bids opened March 15.

son Ave. for banking rooms; awarded contract to Mosier Safe & Lock Co. to install safe and to Mead & Co. for fixtures.

CHURCHES

Mo., St. Louis.—Home Heights Presbyterian Church awarded contract to Lawton & Kricher, St. Louis, to erect edifice recently noted; 31 feet 6 inches by 41 feet 6 inches; frame, with 8-inch to 6-inch cement foundation; hot-water heat; electric lighting; shingle roof; cost \$2800; plans by Marcus & Ruehmann, St. Louis; proposals for heating plant, etc., may be addressed to George N. Huss, Rural Route No. 29, St. Louis. (See "Machinery Wanted.")

S. C., Greenville.—Fourth Presbyterian Church, Washington St. and Broadus Ave., will erect brick edifice with slate roof; 45x65 feet; cost \$17,000; plans by J. E. Sirrine, Greenville; contract recently noted awarded to Fiske-Carter Construction Co., Greenville.

Va., Phoebus.—Men's Bible Class of Phoebus Presbyterian Chapel, James M. Cumming, teacher, awarded contract to Charles W. Hillman, Phoebus, to erect addition to chapel.

CITY AND COUNTY

Ga., Athens.—Jail.—Clarke County Commissioners awarded contract at \$10,485 to Van Dorn Iron Works, Cleveland, O., to furnish jail equipment, cells, cages, locking devices, etc. (Recently noted.)

Tenn., Lawrenceburg.—Jail.—Lawrenceburg County Commissioners awarded contract to M. Neidergess to erect addition to county jail; lower floor for kitchen and dining room; upper floor as jury-room; 18x30 feet; brick construction.

Va., Staunton.—Jail.—City awarded contract to Camden Iron Works, Philadelphia, Pa., to erect jail. (Recently noted.)

DWELLINGS

Fla., Lakeland.—Methodist church awarded contract to Marshall & Sanders to erect parsonage; cost \$3800.

Fla., St. Petersburg.—A. W. Bishop will expend \$8000 to erect dwelling; 32x64 feet; concrete base and porch; remainder frame; fireplaces; electric lighting; creosoted cypress shingle roof; plans and construction by G. F. Richardson, St. Petersburg. (Recently noted.)

Fla., Tampa.—Dr. R. B. McLaws awarded contract to B. F. Walker & Son to erect bungalow on Fielding Ave.

Ga., Atlanta.—J. M. George awarded contract to Cochran & Cleveland to erect five one-story frame dwellings at 2835-39 Drewry St. and 89-93 S. Gordon St.; cost \$14,000.

Ga., Atlanta.—C. V. Truitt awarded contract to C. Frank Grandy, Beattie Bldg., Greenville, S. C., to erect dwelling; pressed brick; stone trimmings; slate roof; cost \$25,000; plans by P. Thornton Marye, Candler Bldg., Atlanta. (Recently noted.)

Md., Cumberland.—D. P. Miller & Co. awarded contract for brick work on 10 six-room dwellings to Wright, Richardson & Co., Inc., Cumberland.

Md., Cumberland.—Harry Little awarded contract to Wright, Richardson & Co., Inc., Cumberland, to erect double brick dwelling.

Md., Relay.—Frank T. Harrison awarded contract to Henry Reich & Son, Catonsville, Md., to improve property on which he will erect number of cottages; will construct road 40 feet wide from Rolling Rd. to Viaduct Ave., reserving space for six-foot walk on both sides.

N. C., Rocky Mount.—J. W. Matthews awarded contract to Dauthridge Bros. to erect proposed dwelling; 62x71 feet; ordinary construction; fireplaces; electric lighting; slate roof; cost \$8000; plans by Harry R. Wagner, Rocky Mount.

N. C., Rocky Mount.—Sylvester Carpenter awarded contract to K. K. Bell to erect proposed dwelling; 39x46 feet; ordinary construction; fireplaces; electric lighting; slate roof; cost \$3000; plans by Harry R. Wagner, Rocky Mount.

N. C., Rocky Mount.—Allen McKeithen awarded contract to George Vincent to erect proposed dwelling; 33x38 feet; ordinary con-

struction; fireplaces; electric lighting; shingle roof; cost \$2500; plans by Harry R. Wagner, Rocky Mount.

Tenn., Memphis.—Mrs. A. V. Hawley awarded contract to R. B. Neill to erect residence at 127 N. Willett St.; cost \$4000.

Tenn., Memphis.—E. G. Maddin awarded contract to F. E. Meachim to erect residence at Nelson Ave. and Ragland St.; cost \$3050.

Tenn., Memphis.—E. D. Lee awarded contract to Malkin & Dlugach, Memphis, to erect residence at 327 Avalon Pl.; cost \$5000.

Tenn., Memphis.—H. A. Kepple awarded contract to erect store and dwelling. (See "Stores.")

Tenn., Memphis.—M. M. Bosworth awarded contract to H. H. Higbee to erect two residences at 2190 and 2191 Union Ave.; cost \$2000 each.

Tenn., Nashville.—Mrs. Irma Cohn awarded contract to G. W. McClanahan, 108 11th St., Nashville, to erect dwelling; 12 rooms and 3 bathrooms; Bowling Green stone-veneer; hot-water heat; Red Spanish tile roof; cost \$14,000; plans by Waller & Hinze, 57 Arcade Bldg., Nashville. (G. W. McClanahan recently noted to erect store building.)

Tenn., Nashville.—William Gerst awarded contracts (separately) to erect dwelling; ordinary construction; steam heat; gravel roof; plans by Marr & Holman, 701 Stahlman Bldg., Nashville. (Recently noted.)

Tex., Cuero.—A. B. Davidson awarded contract to Charles Fuess & Son, Cuero, to erect residence.

Tex., Dallas.—Edgar J. Murphy, 2305 Bryan St., awarded contract to Olin Ozee, Dallas, to erect two-story eight-room frame dwelling at 5018 Worth St.; ordinary construction; hot-air heat; shingle roof; cost \$5000. (Recently noted.)

Tex., Yoakum.—G. H. Niemeyer awarded contract to erect residence on South Lott St.; seven rooms; brick.

Tex., Wharton.—Burger & Robinson awarded contract to erect two dwellings. (See "Stores.")

W. Va., Franklin.—Mrs. Mary C. Kee awarded contract to Eugene Keister, Upper Tract, W. Va., to erect residence and barn.

GOVERNMENT AND STATE

Md., Owings Mills.—Training School.—Maryland Training School for Feeble-Minded awarded contract at \$64,000 to Gladfelter & Chambers, 2074 Woodberry Ave., Baltimore, Md., to erect dormitory building at Rosewood Training School, and to Herr Bros. for heating at \$7800; plans by Ellicott & Ewart, Union Trust Bldg., Baltimore, Md.; Charles L. Reeder, consulting engineer, 921 Equitable Bldg., Baltimore. (Recently noted.)

HOTELS

Tex., Houston.—M. DeGeorge awarded contract to Central Construction Co., Houston, to erect hotel at LaBranch St. and Preston Ave.; six stories; fireproof; 50x125 feet; cost \$75,000; plans by Green & Finger, Houston. (Recently noted.)

Tex., Houston.—Texas Avenue Realty Co. awarded contract to C. W. Raper, Houston, to erect annex to hotel building on La Branch St.; cost \$10,000.

Tex., Waco.—Mrs. George D. Streeter awarded contract to R. P. McBride to erect hotel; four stories; 45 rooms; site 40x103 feet.

RAILWAY STATIONS, SHEDS, ETC.

N. C., Concord.—Southern Railway Co., B. Herman, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., awarded contract to install heating system in passenger station to Hess & Rogers, 617 14th St. N. W., Washington, D. C.; general contract awarded to J. A. Jones, Charlotte, N. C.; ordinary construction; cost about \$15,000. (Recently noted.)

Tex., Wharton.—Southern Pacific Company, A. B. Kellogg, engineer maintenance of way, Houston, Tex., awarded contract to erect depot.

SCHOOLS

Ga., Augusta.—Paine College Trustees awarded contract to T. O. Brown, Augusta, Ga., to erect dormitory; cost \$25,000.

La., New Orleans.—Congregation of Holy Cross has plans by and awarded contract to Lionel F. Favret, 309 Tulane Newcome Bldg., New Orleans, to erect addition to college building; ordinary construction; gravity system of heating; electric lighting; cost \$52,000.

Mo., Kansas City.—Board of Education awarded contracts for Bancroft School as

follows: Edmunds & Lovitt, for plumbing at \$1347, and heating at \$4378; Kansas City Construction Co., for electric wiring at \$1071; National Regulation Co., for temperature regulation at \$978. (Previously noted.)

S. C., Hartsville.—Coker College trustees awarded contract to J. M. Lawton, Abbeville, S. C., to erect dormitory; cost about \$50,000; plans by Wilson & Sompayrac, 1302 Main St., Columbia, S. C. (Recently noted.)

Tenn., Nashville.—Ward-Belmont College Trustees, Rev. Ira Landreth, president, awarded contract to Edgely & Nashville Manufacturing Co., Nashville, to erect academic building and dormitory according to plans by John Kevan Peebles, Norfolk, Va., and Hart & Gardner, Nashville; dormitory to be three stories and basement, each room to have private bath; academic building to be four stories, to have assembly hall to seat 1500, with gallery, swimming pool, etc.; both structures of brick, with granite and limestone trimmings; fireproof; slate roof. (Recently noted.)

Tex., Prairie Dell.—School Trustees awarded contract to H. D. Pampel, Temple, Tex., to erect one-story school building; cost \$5000.

Tex., Slaton.—Trustees of Slaton independent school district awarded contract to E. Shophell, Slaton, to erect school building; brick; fireproof construction; seven classrooms on first floor; second floor to contain auditorium to seat 500; heating and ventilating; cost \$15,000.

Va., Alexandria.—City awarded contract to erect normal school to Page Construction Co., Hibbs Bldg., Washington, D. C., and for structural iron work to Soper & McDonald, 318 Main Ave. S. W., Washington D. C.

Va., Brandy Bridge (not a postoffice).—Talbot County Commissioners, Easton, Md., awarded contract to J. Lemuel Stewart, Cordova, Md., to rebuild Chapel district school recently burned; frame construction.

Va., Coeburn.—City awarded contract to D. J. Phipps, Newport News, Va., to erect high school; completion by September 15; cost \$30,000. (Recently noted.)

STORES

Ala., Birmingham.—Collins, White & Scott awarded contract to Evans Bros. Company, Birmingham, to erect building at 23d St. and Second Ave.; four stories; brick; total cost \$40,000.

Fla., Jacksonville.—Rhodes-Futch-Collins Furniture Co., 312 Main St., awarded contract in December to Pittman Construction Co., Atlanta, Ga., to erect furniture store; 65x100 feet; 1½ stories and basement; reinforced concrete construction; fireproof; steam heat; gas and electric lighting; one electric passenger and one electric freight elevator; fireproof composition roofing; cost \$100,000. (Previously noted.)

Ala., Talladega.—Ancient Free and Accepted Masons awarded contract to erect store and lodge building. (See "Association and Fraternal.")

Ark., De Valls Bluff.—W. H. Bland awarded contract to erect two-story mercantile building to replace structure recently reported burned.

Ga., Washington.—Thomas M. Nabers purchased site adjoining business building he is erecting and will enlarge plans to include new site, giving new structure total frontage of 70 feet; gray pressed brick; two stories; lower floor for stores; upper floors for offices; total cost, \$23,000; contract awarded. (Recently noted.)

Ga., Waycross.—E. D. Carswell awarded contract to A. S. Morton, Waycross, to erect two stories; 25x100 feet each; fireproof construction; tin roof; cost \$5000; materials purchased. (Recently noted.)

Ky., Pineville.—Richards & Greene awarded contract to Pursfull & Cawood, Pineville, to erect proposed furniture store; 125x25 feet; two stories; brick; cost not over \$5000.

La., Morgan City.—Specialty Store awarded contract to erect mercantile building.

N. C., Greensboro.—R. C. Hood has contract to remodel Bogart Hall on West Market St. for store; will extend same 45 feet in rear, install copper and glass front, with marble base; tiling in entrance; cost \$3500.

S. C., Anderson.—T. Q. Anderson will erect business building; 20x75 feet; brick; plate-glass front; tin roof; cost \$3000; plans and construction by J. L. Hembree, Anderson.

Tenn., Cookeville.—Farley & Maxwell awarded contract to J. B. Scott, Cookeville, to erect store building; lot 43½x39½ feet; fireproof construction; metal roof. (Recently noted.)

Tenn., Memphis.—H. A. Kepple awarded

contract to Malkin & Diugach, Memphis, to erect store and dwelling at 1616 Linden Ave.; cost \$4000.

Tenn., Nashville.—W. V. Davidson, J. N. Hicks and M. T. Greene awarded contract (in November) to Davidson, Hicks & Greene Company, Nashville, to erect store building; 85x107 feet; four stories and basement; ordinary construction; heating plant not decided; electric lighting; three elevators; cost \$50,000 to \$60,000; plans by Clarence Sutherland, Nashville. (Standard Furniture Co., W. V. Davidson, president, recently noted to erect building.)

Tenn., Nashville.—J. S. Reeves Estate Co. awarded contract to H. Griffith & Bros., Nashville, to erect business building at 409-413 Second Ave. north; two stories; steam heat; electric lights; cost \$15,000; plans by Chas. A. Ferguson, Nashville.

Tex., Chapel Hill.—Schaer & Willford have plans by and awarded contract to J. B. Heartfield, Chapel Hill, to erect store building; 30x60 feet; two stories; fireproof construction; brick; gas lighting; cost \$6000. (Recently noted.)

Tex., Comanche.—Knights of Pythias Lodge awarded contract to erect mercantile and lodge building. (See "Association and Fraternal.")

Tex., Dallas.—Joseph Scottino, 1191 Boll St., awarded contract to A. Guidera, Dallas, to erect store building; 40x74 feet; fireproof construction; gravel roof; cost \$6500. (Recently noted.)

Tex., Greenville.—M. M. Arnold and associates awarded contract to Shepherd Bros., Greenville, to erect building on Lee St.; two stories; brick; front of pressed brick and stone; cost \$10,000; plans by George Lindsey, Greenville.

Tex., Wharton.—Burger & Robinson awarded contract to erect brick building; two sto-

ries; 27x70 feet; also awarded contract to erect two residences.

Va., Richmond.—Charles E. Straus, Jr., 10th and Main Sts., has plans by and awarded contract to Aubrey Hunt, 901 Floyd Ave., Richmond, to erect store building; ordinary construction; cost \$15,000.

THEATERS

Tenn., Mt. Pleasant.—Mt. Pleasant Opera-house Co. awarded contract to J. Frank Johnson to erect opera-house; 51x90 feet; ordinary brick construction; electric lighting; Carey's roofing; cost \$2500; plans by J. Chadwell. (Recently noted.)

WAREHOUSES

Ala., Florence.—R. L. Glenn has plans by and awarded contract to J. Marks to erect 44x125-foot warehouse; electric lighting; tin roof. (Recently noted.)

La., New Orleans.—Holmes & Barnes, Ltd., awarded contract to J. A. Petty, New Orleans, to erect warehouse; brick; fireproof; two stories; 97x112 feet; cost \$32,755.

Md., Baltimore.—F. Bonhage, 111 Market Pl., awarded contract to Consolidated Engineering Co., Bromo-Seltzer Tower Bldg., Baltimore, to erect warehouse on Frederick St. south of Water St.; two stories; 33x50 feet; brick; steam heat; electric lights; plans by George R. Callis, Knickerbocker Bldg., Baltimore.

Tenn., Memphis.—J. K. Mitchell, 155 N. Main St., awarded contract to Thomas Yarwood, 896 Thomas Ave., Memphis, to erect warehouse; 50x55 feet; ordinary construction; electric lighting; composition roof; cost \$4600; plans by Alsop & Smith, Randolph Bldg., Memphis. (Thomas Yarwood recently noted to erect store building.)

report, have begun work on an additional track on the Western Maryland Railroad near Williamsport.

Miss., Biloxi.—J. M. Searles, Vicksburg, Miss., is engineer in charge for the proposed Mississippi Northwestern Railroad, which is to be built from Pascagoula and Biloxi, Miss., to Omaha, Neb., the approximate cost being estimated at \$30,000,000. Date of opening bids for construction not yet fixed.

Miss., Purvis.—The Hand-Jordan Company is reported to have begun grading for a railroad 15 or 20 miles long from Purvis west through timber lands.

Md., Union Bridge.—Survey is being made for a branch four miles long from Key Mar, on the Northern Central Railway, to Union Bridge, says a report. The Tidewater Portland Cement Co., Union Bridge, may be able to give information.

N. C., Beaufort.—Application is made to the North Carolina Legislature for a charter to build the Beaufort Terminal Railroad from Beaufort to Point Lookout, 15 or 20 miles; capital \$5,000,000. The incorporators are officers of the Norfolk Southern Railroad Co., thus: E. C. Duncan of Raleigh, N. C., a director; W. B. Rodman, general solicitor, and Morris S. Hawkins, secretary and assistant to the president, both of Norfolk, Va.

N. C., Black Mountain.—An extension of the Black Mountain Railroad from Burnsville to Weaverville, N. C., 29 miles, it is reported, is under consideration by the owners, Dickey, Campbell & Co., Inc., of Black Mountain.

N. C., King's Mountain.—The Saluda-Hendersonville Interurban Railway Co., with authorized capital of \$150,000, is chartered to operate electric railways, etc. Subscriptions amounting to \$31,000 reported. J. M. Torrance of Bessemer City, W. A. Mauney and C. E. Neisler of King's Mountain and U. G. Staton of Hendersonville are interested.

N. C., Selma.—The Atlantic Coast Line has authorized construction of masonry necessary for second-track work between Selma and Parkton, N. C., about 60 miles, but grading is not yet let. E. B. Pleasants is chief engineer, and D. W. Gross, engineer of construction, both at Wilmington, N. C.

Okla., Ardmore.—Oscar O. Ayres, Olathe, Kans., is reported saying that efforts will be made to renew right-of-way contracts for the proposed line of the Arbuckle & Western Railroad from Ardmore to Chickasha, Okla., about 80 miles; also that if they are renewed, financing is assured.

Okla., Guthrie.—Joseph W. McNeal of Guthrie is quoted saying that the Mountain, Valley & Plains Railroad, chartered four years ago with authorized capital of \$500,000, is to be built. Proposed line is from Guthrie, Okla., to Cimarron, N. M., via Kingfisher, Watonga, Arnett and Taloga, Okla.; Dalhart, Clarendon and Higgins, Tex. Incorporators were S. E. Null, E. E. Plank, M. F. Ward and C. L. Johnson of Arnett, Okla.; H. S. Wannamaker of Amistead, N. M.; J. M. Cogan of Canton, O.; A. E. Thompson of Berea, Ky.; F. E. Farrington of Clarendon, Tex.; E. C. Gray of Higgins, Tex.; Benj. O. Boyce and D. W. Herrington of Dalhart, Tex.

Okla., Nowata.—J. E. Campbell, Nowata, says that the line of the Kansas-Oklahoma Traction Co. is contemplated, but sufficient progress has not been made in the plans to make announcements.

Okla., Stillwater.—Louis J. Lampke and Charles Cresser of New York city are reported to have begun construction of an electric interurban railway 15 miles long from Stillwater to Morrison, Okla., for the Oklahoma Public Service & Interurban Lines. Street railways will be built in Stillwater. Rails purchased.

S. C., Timmonsville.—The South Carolina Western Railway Co., now building from Lydia to Timmonsville, will, it is reported, make a further extension from Timmonsville to Olanta, S. C., about 12 miles, connecting there with the Alcolu Railroad. W. R. Bon-sal, Hamlet, N. C., is president.

S. C., Spartanburg.—The Southern Railway, it is reported, has bought land at Brawley and Cannon Sts. to extend its railroad yards. W. H. Wells, Washington, D. C., is chief engineer of construction.

Tenn., Harriman.—The Tennessee Timber, Coal & Iron Co., says a report, proposes to extend its railroad from Catoosa to Jamestown, Tenn., Catoosa being a new mill town established by it.

Tenn., Jackson.—The Birmingham & Northwestern Railroad Co. is reported contemplating construction of a branch from a point north of Alamo to Maury City and Brownsville, Tenn., about 20 miles. I. B. Tigrett is president at Jackson, Tenn. The old roadbed of the Holly Springs & Brownsville road may be used.

Tenn., Selmer.—Clem Lea of Selmer says that date has not been set for receiving bids for the construction of the contemplated branch of the Mobile & Ohio Railroad from Selmer 6 or 10 miles to clay and iron-ore mines. Route is level. He and J. R. Adams, also of Selmer, own most of the property.

Tex., Austin.—A. B. Axtell is reported making survey for the proposed interurban railway from Austin to Lockhart, Tex., 30 miles, in which Dr. E. W. Brown of Beaumont and others are interested.

Tex., Christine.—The Artesian Belt Railroad, says a report, will be extended from Christine to Crowther, Tex., about 17 miles. J. P. Jackson, Macdonia, Tex., is chief engineer.

Tex., Knox City.—G. W. Thomason of Haskell, Tex., is quoted saying that a railroad is to be built from Knox City to Crystal Falls, Tex., about 60 miles, and finally to Fort Worth, Tex. Estimated cost of present plan \$1,650,000.

Tex., Lubbock.—The Santa Fe is reported to have graded more than 90 per cent. of its extension of 89 miles from Lubbock to Texico, and tracklaying is to begin immediately. It is expected to operate the line about August 15.

Tex., Nacogdoches.—P. A. McCarthy & Sons, Lufkin, Tex., made location survey for an extension of the Nacogdoches & South-eastern Railroad from Durham to a junction with the Angellina & Neches River Railroad, about 24 miles. Route is comparatively level, and work includes two 14-foot trestles. J. S. Moore of Lufkin, Tex., is contractor.

Tex., San Antonio.—Neal M. Leach of New Orleans, assistant to the president of the International & Great Northern Railroad, is quoted saying that 15,000 tons of new steel rails will be laid between San Antonio and Laredo, Tex., as soon as they are received from the mills.

Va., Norfolk.—The Norfolk, Yorktown & Washington Railroad Co., with headquarters at Norfolk, Va., has been granted a charter to build a line from Norfolk through Newport News, Hampton, Yorktown, Alexandria and other places, 156 miles, and traversing parts of Gloucester, Middlesex, Essex, Carolina, King George, Stafford, Prince William and Fairfax counties; officers, C. T. Hobart, president; Leon C. Steele, vice-president and secretary; W. W. Terry, second vice-president, and S. S. Pope, treasurer, all of Norfolk. Directors include Messrs. Hobart and Terry, Louis Feuerstein, Louis Mansbach, Harvey M. Dickson, W. F. Dusch and George H. Lewis of Norfolk, Va., and C. T. Blake of Greensburg, Pa.

Tex., Velasco.—The Houston & Brazos Valley Railroad Co. has amended its charter for an extension from Velasco to Bryan Heights, about five miles. Felix Jackson, Velasco, Tex., is president and general manager.

Va., Lynchburg.—Curtis & Shumway are quoted as announcing that they have contract for second track on the Southern Railway from Monroe to Amherst Court House, 8 miles, and will remove their headquarters from Slaughter, Pa., to Lynchburg. Contract is estimated at \$100,000, exclusive of track construction, that amount covering grading and masonry; also reported that the company will build second track from Monroe to Tye River, 16 miles, and after these contracts are let second track work from Tye River to Charlottesville may be considered. W. H. Wells, Washington, D. C., is chief engineer of construction.

W. Va., Beckley.—The Virginian Railway, it is announced, has let contract to Goodwin, Boxley, Bray & Co. of Roanoke, Va., to complete the Jenny's Gap tunnel, and forces are already at the scene near Lester preparing for work. J. W. Goodwin is in charge.

W. Va., Beckley.—An officer of the Chesapeake & Ohio Railway is quoted saying that contracts have been awarded and construction is in progress on an extension of about 8 miles up Island Creek, this covering all construction now proposed there.

W. Va., Fayetteville.—The Fayette Traction Co., with authorized capital of \$50,000, has been chartered to build a line several miles long from Fayette Station via Fayetteville to Oak Hill, along New River; incorporators, George Love, Robert H. Dickinson, C. W. Dillon, E. L. Nuckolls, A. W. Hamilton, R. L. Carter and M. M. Malcolm, all of Fayetteville.

W. Va., Martinsburg.—Clarence E. Martin, attorney, is quoted saying that the engineers on the survey for the Shenandoah Valley Railway Co. are nearly ready to make their report, and it is hoped to begin construction by April 1.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—The Birmingham, Ensley & Bessemer Electric Railway announces that its East Lake division is complete, and will be put in operation immediately. This, with the Ensley division now in use, will give 15 miles of track in service. G. I. Brown is general manager.

Ala., Hairston.—The Ray Lumber Co., it is stated, is building a railroad from Hairston toward Aliceville, Ala., to get out hardwood timber.

Ala., Hayneville.—Concerning the contemplated extension of the Hayneville & Montgomery Railway, W. S. Richardson, president, Montgomery, Ala., says it is not yet decided what will be done. Other officers are yet to be elected.

Ark., Lester.—The St. Louis & San Francisco Railroad is reported to have purchased the Lester Mill Co.'s railroad, which extends from Lester to within a few miles of Hope, Ark., and will complete the line to that place. F. G. Jonah, St. Louis, Mo., is chief engineer of construction.

Fla., Charlotte Harbor.—J. H. Nelson of Harbor View is reported saying that completion of survey for the proposed railroad from Venice to Charlotte Harbor is temporarily stopped on account of illness of the engineer in charge, but that the line will certainly be built.

Fla., Pensacola.—G. A. Berry, vice-president and general manager Gulf, Florida & Alabama Railway Co., Pensacola, says: "We are now prepared to contract for grading a 20-mile extension north from Local, Ala., into Monroe county. Grading is through level country, and should be handled entirely by station men. There is considerable grubbing and clearing to do. We will be glad to have any contractors who care to bid on this work communicate with us at the earliest possible moment."

Fla., St. Petersburg.—C. Perry Snell of St. Petersburg is reported about to build a trolley line extension from Pappy's Beach to Calbraith's Beach or Frazier's Beach.

Ky., Madisonville.—B. T. Robinson and W. W. Kingston are reported contemplating construction of an electric railway from Madisonville to Nortonville, Ky., about 10 miles.

Ky., Paducah.—The Kentucky Southwestern Electric Railway, Light & Power Co. is quoted as making announcement that bids have been invited from 12 large contractors for the construction of its first division from Paducah via Mayfield to Murray, Ky., 55 miles, proposals to be received beginning March 10. H. C. Rhodes is president, and W. A. Calhoun, chief engineer at Paducah, Ky.

La., Alexandria.—Construction of the Alex-

andria & Western Railroad from Alexandria to Lamothe, La., 14 miles, has begun, Irvin McGinnis, it is reported, having grading contract. G. F. Cotter, Fort Worth, Tex., is president, and W. W. Whittington, Alexandria, a director.

La., Natchitoches.—A very large majority was cast at a recent election in favor of a tax bonus to secure the Orange & Northeastern Railroad extension to Natchitoches. Ed. Kennedy, Orange, Tex., is president. A recent report wrongly referred to this as the Orange & Northwestern Railway.

La., Shreveport.—Glenn N. Walker, secretary-treasurer, North Louisiana Electric Railway Co., Shreveport, says that permanent location of route is not completed (engineers being still in the field) for its proposed line from Shreveport to Monroe, La., 110 miles, via Minden, Homer and Ruston, La. Maximum grade 1 per cent. Financing not yet arranged. There are 20 miles already graded. J. T. Hardman is chief engineer. Directors are A. B. Blevins, president and general manager; Glenn N. Walker, secretary-treasurer, both of Shreveport; A. Kinnebrew, vice-president, Homer, La.; G. W. Hardy and A. J. Peay of Shreveport, A. D. Turner and W. P. Devereaux of Minden, S. M. Lewis of Ruston and J. T. Austin of Monroe, La.

Md., Baltimore.—The Pennsylvania Railroad contemplates considerable track construction at Baltimore to increase facilities, and plans are under consideration. Alex. C. Shand, Philadelphia, Pa., is chief engineer.

Md., Baltimore.—The Baltimore & Ohio Railroad, according to statements in connection with application to the Public Service Commission for permission to issue \$63,250,000 of 4½ per cent. convertible bonds, contemplates the expenditure on its system of about \$27,000,000 for improvements. On the Baltimore division alone about \$1,500,000 is to be used, of which \$750,000 will be spent on the terminals at Baltimore. On the Cumberland Division an additional double track will be constructed for 14½ miles from Orleans Road to Little Cacapon. This latter will require about \$7,000,000, it is understood, as the work is heavy. Construction plans are not yet wholly approved by the directors, and further announcements may be made. F. L. Stuart, Baltimore, is chief engineer.

Md., Cambridge.—The Board of Trade has appointed a committee consisting of Dr. B. W. Goldsborough, George W. Woolford and A. J. Foble of Cambridge to consider the proposition to build the Fox Creek Railroad from Cambridge into the southern part of Dorchester county.

Md., Williamsport.—Anderson Bros., says a

W. Va., Martinsburg.—Alexander Clohan of Martinsburg, one of the incorporators of the Williamsport, Nettle & Martinsburg Railway Co., with headquarters at Martinsburg, is quoted saying that it contemplates construction of a railroad from Williamsport, Md., to Martinsburg, W. Va., about 12 miles, and that it is not connected with the proposed trolley line; capital stock \$250,000.

W. Va., Rich Creek.—The Virginian Railway Co. has a charter to build a line from Rich Creek to Hinton, W. Va., but it is not contemplated to begin construction now. (See Manufacturers Record February 27.)

W. Va., Wheeling.—The West Penn Traction Co. is reported to have completed surveys for an electric railway from Wheeling to Pittsburgh. W. S. Kuhn is president, and J. S. Kuhn, vice-president, at Pittsburgh, Pa.

STREET RAILWAYS

Ark., Hot Springs.—It appears that the Central Arkansas Railway & Light Corporation, just chartered in Virginia by Wm. L. McKee of Brooklyn, N. Y.; L. C. Gerry and John B. Marsh of New York city, is to hold and operate public utilities at Hot Springs heretofore opened by the Hot Springs Water Co., which, it is stated, have been taken over by the Federal Light & Traction Co., 60 Broadway, New York. S. W. Fordey of Little Rock, Ark., and Chas. H. McKee of Hot Springs are reported as making the announcement.

Fla., St. Petersburg.—The St. Petersburg

& Gulf Railway Co., says a report, will extend its street-car line from Bayboro to Big Bayou. T. W. Keller and others are interested.

La., Alexandria.—Southern Traction & Power Co. is reported organized with capitalists of Dayton, O., as principal stockholders and to have taken over the Alexandria Electric Street Railway Co., whose lines will be extended; capital \$300,000. Wm. P. Jenkins is president; Ernest Boehm, vice-president and manager; Erie J. Weaver, secretary-treasurer.

La., New Orleans.—President Hugh McCloskey of the New Orleans Railway & Light Co. is quoted saying that extensive improvements are to be made to the Villere lines between Canal St. and St. James Ave.

Md., Baltimore.—The City Board of Awards has received bids for the construction of a branch electric railway from the Harford Road line of the United Railways & Electric Co. to Lake Montebello for hauling materials to the filtration reservoir under construction. Award will not be made for several days. Bids announced thus: Malcolm W. Hill, \$11,555; Whiting-Turner Construction Co., \$12,549; C. W. Lane & Co., \$18,043.

Tenn., Nashville.—The Nashville Railway is to begin work soon on an extension of the Fetherland St. line to Shelby Park. It is also under consideration to extend the Buena Vista line about three-quarters of a mile. Construction of the Belle Meade line is being pushed. Percy Warner is president.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Angle Iron.—See "Machine Tools, etc."

Automobiles.—See "Machinery, etc."

Automobile Supplies.—Eunice Carriage & Machine Shop, Eunice, La., want prices on solid automobile tires, puncture-proof liquid for filling inner tubes and other automobile supplies; A. D. Marcotta, manager.

Baling Press.—Imperial Bagging Co., Box 1037, Norfolk, Va., wants hand or power baling press.

Boiler.—See "Sawmill, etc."

Boiler.—Bog Springs Co., W. L. Shirey, president, Ashdown, Ark., wants prices on boiler.

Boiler.—G. M. & G. Stave Co., Exchange, W. Va., wants 30 or 35-horse-power mounted boiler.

Boilers.—H. H. Guill, Box 884, Richmond, Va., is interested in 50-horse-power return-tubular boiler, capacity 100 pounds steam pressure; also 125-horse-power return-tubular boiler, 125 pounds steam pressure. Give best price and location.

Bending Rolls.—See "Boring Mill, etc."

Boring Mill, etc.—Montgomery Coal Washing & Manufacturing Co., Third Ave. and 12th St., Birmingham, Ala., wants second-hand boring and turning mill, about 60 to 70-inch swing; also set of bending rolls; both either belt or motor driven.

Brass.—See "Metal Tubing, etc."

Brick Machinery.—J. L. Tallaferro, 211 N. 29th St., Richmond, Va., will want second-hand auger brick machine outfit; capacity 50,000.

Bridge Construction.—Dismal Swamp Railroad Co., G. P. Lewis, engineer, Box 815, Norfolk, Va., receives bids until March 15 for erection of three steel bridges (lift type) sub and superstructure, 1200 feet pile trestle, 1000 feet pile bulkhead, 50,000 cubic yards suction dredge and other work; detailed information obtainable at 420 Law Bldg., Norfolk.

Bridge Construction.—Bids received by undersigned until 10 A. M. March 4 to furnish plans and specifications and erection of bridge at 12th St. in North Fort Worth, to be built as follows: By using the 162-foot span of old North Main St. bridge over river channel and other reinforced concrete girder spans 30 feet long from end of span to each levee, or by using steel girder of old North Main St. bridge, making 18-foot spans built on concrete piers; bridge to be a 20-foot roadway with 7-foot sidewalk on each side, with concrete floor, carrying capacity of 20-ton roller; also to be completed within shortest time possible; time to be stated in bid; certified check for \$1000; J. A. Mulholland, County Auditor, Tarrant county, Tex.

Building Materials.—W. D. Collins Safe & Fixture Co., Denison, Tex., wants to correspond relative to following: Brick or pressed-steel front, corrugated iron, several sections steel window sash and concrete floors for proposed 50x110-foot wareroom and planing-mill shop.

Canning Machinery.—W. M. Ivey, care Albemarle Telephone Co., New London, N. C., wants information and prices on equipment for small cannery.

Canning Machinery.—Sherwood Canning Co. (R. S. Harrison and M. G. Jarboe), Sherwood, Md., wants prices on 50-horse-power horizontal boiler, 12-horse-power vertical steam engine and peeling table (merry-round type) for 70 tomato peelers.

Canal Construction.—U. S. Engineer Office, Louisville, Ky. Proposals for widening Louisville and Portland Canal received until 11 A. M. (central time) March 26, then opened. Information on application. J. C. Oakes, Major, Engineers.

Cars.—See "Mining Machinery and Equipment."

Clayworking Machinery.—James A. Farra, Agricultural Engineering Department, State University of Kentucky, Lexington, Ky., wants information and prices on machinery to manufacture clay drain tile in small quantities.

Concrete Work, etc.—Santee River Cypress Lumber Co., Ferguson, S. C. (preparing to build planing mill, etc.), will let contract for grading and leveling approximating 20,000 yards dirt excavation and filling; also concrete work; separately or combined.

Cooperage Machinery.—J. H. Scoggins & Sons, Armuchee, Ga., want machinery to manufacture 16 to 20-inch heading; daily capacity 6000 sets.

Concrete Curbing.—Bids received by City Council of Tallahassee, Fla., until 7:30 P. M. March 13 for curbing Calhoun St. on each side from south side of Park Ave. to south side of North Line St., about 5413.8 linear feet, leaving a driveway of 24 feet from curb to curb; curbing 4 inches thick, 16 inches deep and 6 feet long, with rounded edges, smooth and straight, and no rocks showing on top edge or face side; plans and specifications on file in office of City Engineer; A. H. Williams, City Clerk.

Cotton Webbing.—See "Leather, etc."

Cotton Picker.—Imperial Bagging Co., Box 1037, Norfolk, Va., wants Davis & Turner cotton picker.

Cranes.—Proposals, endorsed "Proposals for Locomotive Cranes," received at Bureau of Yards and Docks, Navy Department, Wash-

ington, D. C., until 11 A. M. April 12, then opened, for 11 15-ton locomotive cranes, with grab-bucket equipments, delivered and erected at naval station, Pearl Harbor, Hawaii, and navy-yard, Puget Sound, Wash. Specifications obtainable on application to Bureau of Yards and Docks. H. R. Stanford, Chief of Bureau.

Cranes, etc.—Proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10:30 A. M. March 26 for furnishing electric traveling cranes, steel rail, angle bars, track bolts, switches, tieplates, track chisels, babbit metal, poultry netting, steel wire, taps, screws, cotter pins, hammers, wrench parts, pipe fittings, valves, saws, hinges, tackle blocks, torches, ladders, rakes, oars, hose, silica sand, foundry clay, black enamel and lumber. Blanks and general information relating to this circular (No. 764) obtainable from this office and offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from United States Engineer offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, and Commercial Club, Tacoma. F. C. Boggs, Major, Corps of Engineers, United States of America.

Dam Construction.—A. A. Northen, Ashland, Ala., wants data relative to constructing cement dam to develop water-power, how to estimate possible horse-power from volume of water and head, and other information.

Ditching Machinery.—E. W. Parker, 214 Curry Bldg., Tampa, Fla., will consider ditch-digging machine, light and portable, to excavate about 9 feet in width and 12 feet deep.

Drainage.—Bids received until noon March 6 at office of Everglade Land Sales Co., Dorn Bldg., Miami, Fla., to construct about three miles canal; involving removal of about 67,000 cubic yards earth and 150 cubic yards rock; divided into two 1½-mile canals, on each side of South New River Canal, traversing "Davie Farm;" one bid for excavating to grade, according to sections on plans and profiles; other bid for excavating to grade on profiles and rectangular sections; certified check 5 per cent. amount bid; blanks at office of company; W. J. Kackley, engineer.

Dredging.—Bids received by undersigned until noon March 18 for dredging in front of city wharves lying between Dauphin and St. Anthony Sts., of about 80,000 cubic yards of materials, so as to bring depth in front of said wharves to Government channel depth of 27 feet; plans may be seen at office of City Engineer; H. Pillans, Commissioner, Mobile, Ala.

Dredging.—Bids received at office of Internal Improvement Fund, J. Stuart Lewis, secretary, Tallahassee, Fla., until 10 A. M. March 20, then opened. Information on application to office of Chief Drainage Engineer, Tallahassee. F. C. Elliot, Acting Chief Drainage Engineer.

Dredging.—Arthur C. Freeman, Jr., consulting engineer, Norfolk, Va., has contract to let for about 15,000 yards excavation; dipper dredge work.

Electrical Equipment.—W. R. Rhan, Box 276, Orlando, Fla., wants information and prices on electrical equipment for shoe factory.

Electrical Equipment.—Conover Light & Power Co., Conover, N. C., wants prices on poles, insulated wire, dynamos, transformers and other electrical supplies.

Electrical Equipment.—St. Petersburg Electric Light & Power Co., H. C. Case, general superintendent, St. Petersburg, Fla., opens bids March 10 for construction of power-house on A. C. L. Railroad; will want prices on complete power-house equipment; R. E. Ludwig, St. Petersburg, engineer in charge.

Electrical Fixtures, etc.—John E. Phillips, Laurinburg, N. C., wants line of electrical chandeliers and fixtures; wants to correspond with manufacturers.

Electric-light Plant.—See "Waterworks and Electric-light Plant, Sulphur Springs, Ark."

Electric Lighting.—See "Heating Plant, etc., Mebane, N. C."

Electrical Machinery.—See "Machine Tools."

Electrical Machinery and Supplies.—Bog Springs Co., W. L. Shirey, president, Ashdown, Ark., wants prices on dynamo and electric supplies.

Electrical Machinery.—See "Welding Machinery."

Electrical Machinery.—L. H. Lockier, Homerville, Ga., wants to correspond with manufacturers relative to installation of electric-light plant machinery.

Electrical Machinery.—Proposals, endorsed, "Proposals for Generating Set," received at Bureau of Yards and Docks, Navy Department, Washington, D. C., until 11 A. M. March 22, then opened, for a three-wire direct-current engine-driven 125-kilowatt generator at United States Naval Hospital, Norfolk, Va.; amount available, \$5200. Plans and specifications obtainable on application to bureau or to commandant of navy-yard, Norfolk, Va. H. R. Stanford, Chief of Bureau.

Electrical Machinery, etc.—Carpenter, Taylor & Co., Rutherfordton, N. C., want 2000 feet 1½ to 2-inch piping, second-hand; also pump of 400 to 600 gallons per hour capacity, direct connected to electric motor; four to five-horse-power generator. Give details and prices first letter.

Elevator.—Bourbon Tobacco Warehouse Co., Paris, Ky., wants elevator for warehouse.

Elevator.—Treasury Department, office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until 3 P. M. March 18, then opened, for installation complete of electric passenger elevator in connection with extension United States postoffice and courthouse at Charleston, W. Va., in accordance with drawings and specifications, copies of which are obtainable at this office at discretion of architect.

Engine and Boilers.—L. F. Hobbs, P. O. Box 483, Norfolk, Va., in market for 300-horse-power Corliss engine, two boilers 200 horse-power each, to pass inspection for at least 150 pounds steam pressure; water heaters and pumps for same; new or second-hand; prices f. o. b. cars Norfolk.

Engine.—Bog Springs Co., W. L. Shirey, president, Ashdown, Ark., wants prices on steam engine.

Excelsior Machinery.—Allen W. Jones, Midville, Ga., wants excelsior machines.

Extracting Machinery.—J. W. Montague, Crozet, Va., wants information on cost of construction, etc., of plant to manufacture extract from chestnut wood; also prices on machinery; plans to have capacity 35 to 50 barrels daily.

Fountain.—Geo. G. Palmer, Cartersville, S. C., wants spraying fountain for residence grounds; swan image preferred.

Gasoline Engine.—See "Heating Plant, etc., Mebane, N. C."

Ginning Machinery.—Farmers' Gin & Mill Co., Sweet Home, Tex., is receiving prices on equipment for cotton gin with daily capacity 75 bales.

Glass-making Machinery, etc.—E. C. Himley, Deerfield, Wis., wants information and prices on small tools and machinery to melt sand; also molds, etc.

Glove Machinery.—Hanson Bros., 125 W. Reno Ave., Oklahoma City, Okla., wants addresses of manufacturers of cotton canvas glove machinery.

Grinding Machinery.—R. C. Watkins, Norton Bldg., 4th and Jefferson Sts., Louisville, Ky., wants machine (for farm use) for crushing and grinding limestone for fertilizer; has portable steam engine.

Grubbing, Clearing, etc.—Bids received by George B. Merriwether, chairman Drainage Commissioners Hidalgo Drainage District No. 1, at Donna, Tex., until March 26 for grubbing and clearing right of way about 500 feet wide, being 37.9 miles and containing 2310 acres of land in sections 1, 2, 3, 4, 5, 7 and 8 of district; also receives bids until March 26 for 67,000 cubic yards excavation, erection of bridge and grubbing and clearing about 117 acres of land in strip 500 feet wide and 1.9 miles through drainage district for drainage purposes in section 6; further information obtainable from chairman of Drainage Commissioners.

Hardware.—See "Machinery, etc."

Hardware.—See "Machine Tools, etc."

Heating Plant.—George A. Huss, Route 29, St. Louis, Mo., wants prices on hot-water heating plant for \$2500 church building.

Heading Machinery.—Paul & Wayner Lumber Co., F. E. Wayner, manager, Jacksonville, Fla., wants prices on heading machinery.

Heating Plant.—Harris & Crews, Oxford, N. C., want prices on hot-water heating plant.

Heating Plant, etc.—J. S. White, Mebane, N. C., wants catalogues and estimates on installation of heating plant, electric

lights and water system with gasoline engine for 10-room country dwelling.

Heating Plant, Plumbing and Wiring.—Bids received until 4 P. M. March 25 by B. C. Geisenberger, president Board of Trustees, Natchez, Miss., for installation of Broell system of heating plant, plumbing complete and electric wiring in Carpenter Memorial School No. 2; certified check for 5 per cent. of each bid; plans and specifications obtainable from J. H. Owings, superintendent, Natchez, or R. H. Hunt, architect, Chattanooga, Tenn.

Heating Plant.—H. G. Sanderson, Ashdown, Ark., wants prices on steam-heating plant for \$10,000 store and office building.

Hoisting Engine.—See "Mining Machinery and Equipment."

Hotel Furniture.—Bog Springs Co., W. L. Shirey, president, Ashdown, Ark., wants prices on hotel furniture.

Ice Machinery.—Homer Ice & Fuel Co., N. L. Harmon, manager, Homer, La., wants prices on electric motor pump for deep well, cork board for insulation, ice storage and freezing tank.

Ice Machinery.—L. H. Lockier, Homer, Ga., wants to correspond with manufacturers of ice machinery.

Leather, etc.—E. W. Cole, care Cole Manufacturing Co., Charlotte, N. C., wants samples and prices on leather stock and cotton webbing for making razors.

Locomotive.—John G. Duncan Company, 308 Jackson St., Knoxville, Tenn., wants dealers and consumers' (or users') prices on \$ to 10-ton second-hand dummy engine for use on wooden rails; 36-inch gauge.

Locomotive.—The Males Company, 82 Perin Bldg., Cincinnati, O., wants \$ to 10-ton direct-connected 36-inch gauge locomotive for wood rails; Vulcan or Lima preferred. Give description and lowest dealers' price, first letter.

Locomotive.—John G. Duncan Company, 308 Jackson Ave., Knoxville, Tenn., wants lowest prices on second-hand 10-ton locomotive, 36-inch gauge.

Lumber.—Mississippi River Commission, Fourth District, U. S. Engineer Office, Metropolitan Bank Bldg., New Orleans, La. Proposals for furnishing about 50,000 feet B. M. pine lumber received until 11 A. M. March 10, then opened. Information on application, C. O. Sherrill, Captain, Engineers.

Lumber, Metals, etc.—Navy Department, Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-General, Washington, D. C., opens bids March 25 for furnishing 81,250 feet white oak, 200,000 feet white pine, schedule 5236; 100,000 feet white pine, schedule 5238; miscellaneous lot of naval rod brass and bronze, 10,500 pounds round wrought iron, 41,000 pounds cold-drawn steel, miscellaneous lot of hot-rolled or forged steel, 31,200 pounds round nickel steel, schedule 5237; 12,000 pounds nickel plates steel, schedule 5239; 28,000 pounds special treatment plates steel, schedule 5240; 15,900 pounds galvanized sheet steel, schedule 5237; delivery Navy-yard, Washington, D. C.; for schedules apply to navy pay office nearest navy-yard.

Lumber.—Bog Springs Co., W. L. Shirey, president, Ashdown, Ark., wants prices on lumber.

Machine Tools.—Newman Machine Co., Greensboro, N. C., wants new or second-hand radial drill and drill press.

Machine-shop Equipment.—See "Welding and Cutting Machinery, Rome, Ga."

Machine Tools.—J. H. Macleary, Suffolk, Va., wants following: 18 or 20-inch swing screw-cutting lathe, 7 or 8 feet between centers; 15-inch stroke shaper; 24-inch table radial drill. Send cut and give prices first letter.

Machine Tools, etc.—Tifton Foundry & Machine Co., Tifton, Ga., wants prices on power punches, shears, light angle iron, harrow teeth and bolts; for manufacture of harrows.

Machine Tools.—Texas Wrench & Tool Co., Marshall, Tex., wants prices on drilling, milling, threading and nut and polishing machines for manufacture of wrenches; operation by electric motors. Address D. D. Dodd.

Machinery.—Jas. H. Warburton, secretary Salisbury Industrial Club, Salisbury, N. C., wants information and prices on equipment for plant to manufacture concrete blocks and brick; probably two block and one brick machines at start.

Machinery, etc.—Lars Hamre, Vasa, Sweden, wants to correspond with American firms relative to agency on commission basis for leaf tobacco, cotton, lubricating oils and greases, cotton oil, grain, corn and fruits, machinery, hardware, han-

dles, etc.; also wants to correspond with manufacturers of automobiles.

Metal Equipment (Vaults).—See "Vaults, etc."

Metal Tubing, etc.—Hiner Specialty & Manufacturing Co., South New St., Staunton, Va., wants brazed brass, steel tubing, seamless tubing, stamping and drawing steel and steel wire.

Mine Pans.—Crane Company, 607 State St., Knoxville, Tenn., wants prices on two-ton mine weigh pans.

Mining Equipment.—Blanco Prospecting & Mining Co., Blanco, Okla., wants prices on drills, hoisting engine, wire rope, mining pumps, dump cars, etc.

Mining Machinery.—Arkansas Colonizing Co., J. Ewell Black, secretary, Bank of Commerce Bldg., Little Rock, Ark., is interested in prices on machinery to develop 22½-foot vein of lignite coal; also fire-clay 400 feet below surface.

Motor Cars.—L. P. Campbell, Balleaton, Tenn., wants prices on motor cars for line from Balleaton to Greenville, Tenn.

Moving-picture Machine.—Harris & Crews, Oxford, N. C., want prices on picture machine for moving-picture parlor.

Naval Supplies.—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., T. J. Cowie, Paymaster-General, opens bids March 25 for furnishing miscellaneous lot of brass bolts and nuts and 25,000 fire-brick, schedule 5245; 39,000 pounds rolled sheet zinc, schedule 5241; 110,000 pounds red

remittance of \$5 to Benham Engineering Co., consulting engineer, 435 American National Bank Bldg., Oklahoma City, Okla.

Paving.—Proposals received at office of Department of Public Finances, Accounting Division, New Orleans, La., until 11 A. M. March 10 for paving Magazine St. from Exposition Boulevard to Upper End of Audubon Park with petrolium, in accordance with plans and specifications on file in office of City Engineer; deposit of \$200 and bond in amount equal to 25 per cent. of contract price; blank forms of proposal, etc., obtainable from City Engineer.

Peanut-harvesting Machinery.—Chas. A. Evans, Arkadelphia, Ark., wants addresses of manufacturers of peanut-harvesting machinery.

Piping.—See "Electrical Machinery, etc."

Plumbing.—Bog Springs Co., W. L. Shirey, president, Ashdown, Ark., wants prices on bath fixtures and piping material.

Plumbing.—E. V. Garrett, Pocahontas, Va., wants two bathtubs and lavatories complete.

Printing Equipment.—S. T. Terry, Victoria, Va., wants prices on equipment for newspaper plant.

Pulverizing Machinery.—W. A. Hutson, P. O. Box 135, Rio Piedras, Porto Rico, wants addresses of manufacturers of machinery for pulverizing manure.

Pump.—See "Electrical Machinery, etc."

Pump.—See "Ice Machinery."

Pump.—H. H. Guill, Box 881, Richmond,

change, W. Va., wants 30 or 35-horse-power mounted boiler; also new or second-hand portable sawmill.

Seales.—Imperial Bagging Co., Box 1637, Norfolk, Va., wants scales.

Seating.—Harris & Crews, Oxford, N. C., want prices on seating for theater to seat 650 people.

Seating.—George A. Huss, Route 29, St. Louis, Mo., wants prices on opera chairs for church.

Sewer Construction.—See "Water-works Construction, etc."

Sewer Construction.—Bids received by undersigned, Mobile, Ala., until 12 noon March 11 for construction of open storm sewer on St. Louis St. eastward from Broad; brick or concrete bottom and concrete sides; plans and specifications obtainable from Wright Smith, City Engineer; H. Pillans, Commissioner.

Sewers.—Proposals received by Mayor and Board of Aldermen, Martin, Tenn., until 2 P. M. March 24 (extended date) for construction of complete system of sanitary sewers, consisting of 3000 feet 15-inch, 6200 feet 12-inch, 3500 feet 10-inch, 15,350 feet 8-inch and 23,000 feet 6-inch pipe and all necessary man-holes and flush tanks; complete plans and specifications are on file in office of R. C. Huston & Co., consulting engineers, 630 Exchange Bldg., Memphis, Tenn., and of J. H. Wilson, recorder, after March 1; complete specifications mailed on receipt of \$5; certified check 5 per cent. amount bid.

Sewer Construction.—Bids received by undersigned until noon March 25 for construction of sanitary sewer through western portion of city, consisting of about 30,000 linear feet of 8 to 20-inch vitrified pipe; plans and specifications on file in office of City Engineer, Wright Smith, and may be had on application; H. Pillans, Commissioner, Mobile, Ala.

Shoe Machinery.—W. R. Rhan, Box 276, Orlando, Fla., wants information and prices on machinery for manufacturing women's fine shoes.

Spraying Equipment, etc.—Gold Medal Orchard Co., 121 Main St., Mt. Airy, N. C., wants prices on spraying outfits, materials, etc., for fruit orchard, with buildings.

Stage Equipment.—Harris & Crews, Oxford, N. C., want prices on scenery for moving-picture parlor.

Steel Wire.—See "Metal Tubing, etc."

Store Fixtures.—Brownfield Mercantile Co., Brownfield, Tex., wants prices on store furniture and fixtures.

Store Front.—Brownfield Mercantile Co., Brownfield, Tex., wants prices on glass front for store of steel or wood construction.

Stump-pulling Machinery.—John G. Duncan, 308 W. Jackson Ave., Knoxville, Tenn., wants catalogues and lowest jobbers' prices on stump pullers.

Telephone Equipment.—War Department, office of Chief Signal Officer, W. L. Clarke, disbursing officer, Washington, D. C., receives bids until 11:30 A. M. March 12 for furnishing six tension springs for holding magnets on Miliken repeaters, six tension springs for Miliken repeater relay, six wedges and cords for Western Union spring jack and switchboard, cords to be four feet long; six pairs linenman's gloves, No. 11, light-weight rubber; 2700 renewals, 100 McIntyre sleeves, winders, etc. Send for specifications.

Telephone Equipment.—Farmers' Union Telephone Co., W. T. Meeklar, official in charge, Mangohick, Va., wants prices on telephone equipment and wire.

Tobacco Press, etc.—Bourbon Tobacco Warehouse Co., Paris, Ky., wants tobacco press, scales, etc.

Traction Engine.—Joseph A. Bell & Co., 517 American National Bank Bldg., Richmond, Va., want prices on farm traction engine, about 25 horse-power. Give details, including weight.

Traction Engine, etc.—B. R. Shaffer, Ellendale, La., wants prices on traction engine, with road-building equipment; for Terrebonne county roads.

Twine.—T. Soegaard, Consulate of Denmark, New Orleans, La., wants prices from manufacturers on binding twine for export to Denmark and neighboring countries, with Copenhagen for distributing point; acting for importer in Denmark.

Vaults, etc.—Treasury Department, office of supervising architect, Washington, D. C. Proposals received until 3 P. M. April 2, then opened, for construction complete (including electrical protection, conduit and wiring, lighting fixtures, plumbing, heating and ventilating equipment) of vaults (except vault doors) for new building of Bureau of Engraving and Printing at Washington; work

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dry lead and 12,000 pounds white dry lead, schedule 5243; delivery Navy-yard, Norfolk, Va.; for schedules apply to navy pay office nearest navy-yard.

Office Supplies.—Harris & Crews, Oxford, N. C., want prices on office supplies.

Oils.—See "Machinery, etc."

Paving.—Board of Public Works, Louisville, Ky., will open bids March 21 on construction of 300 square yards wood block paving; D. R. Lyman, chief engineer.

Paving.—Proposals received at office of Chas. E. Bolling, City Engineer, Richmond, Va., until 12 noon March 14 for following: About 70,000 square yards smooth paving; 65,000 square yards granite spall paving; 16,000 linear feet granite curbing; 10,000 linear feet granolithic curb and gutter; bids to be made on forms obtainable, with information, from engineer's office, where specifications may be seen; certified check for \$1000; bond required for 50 per cent. amount of each contract.

Paving.—City of Louisville, Ky., opens bids 2 P. M. March 13 for 2575 square yards of 2½-inch 16-pound wood blocks for paving on Main, between 4th and 5th Sts.; blocks to be furnished and laid by contractor; D. R. Lyman, chief engineer Board of Public Works.

Paving.—Bids for paving business district received until 5 P. M. March 10 by W. H. Staples, City Clerk, Cleveland, Okla.; vitrified brick blocks on concrete base, sand cushion, cement grout filler; certified check \$2500; plans and specifications obtainable on

Va., wants price on second-hand pump for lifting sand; about six-inch suction. State location.

Punch and Shear.—See "Machine Tools, etc."

Rendering Plant.—Fant Bros., Anderson, S. C., want small plant for rendering and reducing flesh of carcasses to fertilizer.

Refrigerating Machinery.—Canal Construction Co., 914 Exchange Bldg., Memphis, Tenn., wants information and prices on small refrigerator plants for floating dipper dredges; steam power available.

Road Machinery.—See "Traction Engine, etc."

Road Machinery.—G. E. Waugh, Racoon Ford, Va., wants road-building equipment, including crusher, engine and wagon.

Roofing.—Brownfield Mercantile Co., Brownfield, Tex., wants prices on roofings.

Safe, etc.—Citizens' National Bank, B. Poteet, assistant cashier, wants prices on safe, vault and other bank fixtures.

Sand Filling.—Carl G. Fisher, Miami, Fla. (president of Prestolite Company, Indianapolis, Ind.) wants names and addresses of large dredging companies in vicinity of Miami prepared to estimate on 1,000,000 yards of sand filling; plans to reclaim about two miles of water front; 12 to 15 feet of clear sand available.

Sawmill.—Appalachian Apple Orchards, Candler Bldg., Atlanta, Ga., wants prices on band-saw mill of 15,000 to 25,000 daily capacity; to be operated by electric motor.

Sawmill, etc.—G. M. & G. Stave Co., Ex-

contemplated is construction of four interior vaults of reinforced concrete, having aggregate floor area of 550 square feet, and exterior vault of reinforced concrete, with housing of about 4950 square feet area; fire-proof construction, stone-faced, tile roof; also receives bids until April 3 for metal vault equipment for same; drawings and specifications obtainable at discretion of architect.

Water System (Isolated).—See "Heating Plant, etc., Mebane, N. C."

Water-works Construction, etc.—Board of Public Works, W. J. Dulin, secretary, Madisonville, Ky., will let contracts April 2 for cast-iron water mains, construction of steel tank and laying of water mains; also for sewers.

Water-works Machinery.—City of Canadian, Tex., J. S. Hood, Mayor, wants prices on pumps, two 25-horse-power motors connected to triplex pumps, valves, hydrants, etc.; H. F. Kilburn, engineer, Woodward, Okla., may be addressed.

Water-works Materials.—Proposals received in office of City Water-works, Richmond, Va., until 12 M. March 21 for following: Gate valves, cast-iron pipe, special castings, three nozzle fire hydrants, valve boxes, meters, meter boxes, pig lead, wiping solder, brass work, lead pipe, hauling, laying and relaying granite or cobblestone paving, cutting and refilling pipe trenches and repaving over pipe trenches; specifications, plans and information obtainable and bids must be made on form of proposal furnished by office; certified check \$100; E. E. Davis, superintendent.

Water-works and Electric-light Plant.—Bids received at office of Improvement Board, C. J. Williams, chairman, Sulphur Springs, Ark., until March 20 for material, labor and construction of complete water-works and lighting plant, including power and pump-houses, machinery and electrical equipment, water pipe, valves and standpipe of 100,000 gallons capacity; plans and specifications on file with Improvement Board, and at office of A. C. Moore, engineer, Independent Bldg., Joplin, Mo.

Well Equipment.—Troublesome Creek Oil Co., 422 9th St., Huntington, W. Va., wants prices on well equipment, casing, etc.; open bids about July 15 on well-drilling and machinery.

Welding Machinery.—M. Herzfeld, 912 St. Charles St., Birmingham, Ala., wants information, catalogues and prices on electric welding machine; also thermite process welding furnace and equipment; wants to correspond with manufacturers.

Welding and Cutting Machinery.—Davis Foundry & Machine Works, Rome, Ga., wants welding and cutting outfit for foundry and machine shop.

Welding Machinery.—Florence Plumbing & Roofing Co., 115 Tombigbee St., Florence, Ala., wants to correspond with manufacturers of electrical welding machinery.

Wharf Construction.—Proposals for construction of wharf on Pine St. and one on Magnolia St. received by Board of Public Works, Louis deM. Blockes, chairman, at City Hall until noon March 21, addressed to Adrian E. Langford, clerk, Pensacola, Fla.; plans, specifications, etc., obtainable at office of L. Earl Thornton, City Engineer, Room 203 City Hall; certified check for \$100.

Woodworking Machinery.—See "Excelsior Machines."

Woodworking Machinery.—W. M. Frey, New London, N. C., wants to correspond with manufacturers of barrel and bucket machinery.

Woodworking Machinery.—W. A. Hutton, P. O. Box 195, Rio Pedras, Porto Rico, wants addresses of manufacturers of machinery for working hardwood, mahogany, etc.

FINANCIAL NEWS

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., March 5.

The Baltimore stock market was rather quiet during the past week. United Railways common sold from 23¼ to 23¾; do. income bonds, 62½ to 63¼; do. funding 5s, 86¾ to 87½; do. 4s, 85 to 84¾; Consolidated Gas, Electric Light & Power common, 115; do. 4½s, 89¾ to 89½; Seaboard Air Line common, 19; do. preferred, 43½; Mt. Vernon-Woodberry Cotton Duck 5s, 75½; G. B. S. Brewing common, 3; do. 4s, 47 to 48½.

Bank stock sold as follows: Bank of Commerce, 32; Exchange, 160¼; Merchants-Mechanics, 33¼ to 33½; Western, 42; Bank of Baltimore, 170.

Fidelity & Deposit sold from 174¼ to 176½; Munsey Trust, 106; Mercantile Trust, 158¼; Maryland Casualty, 105; United States Fidelity, 198.

Other securities were traded in thus: Baltimore, Catonsville & Ellicott Mills 5s, 101¼; Consolidation Coal, 100¼ to 101; Baltimore City 4s, 1951, 97; Fairmont & Clarksburg Traction 5s, 100¼ to 100¾; Milwaukee Refunding 4½s, 93½; Consolidation Coal notes, 100¾ to 100; Georgia & Alabama Consolidated 5s, 104¼; Atlantic Coast Line, 125; Western North Carolina 6s, 101¼; Cumberland & Pennsylvania 5s, 103¾; New Orleans Great Northern 5s, 67 to 69; Baltimore Traction 5s, 105¼; Baltimore Electric preferred, 45; Houston Oil common, trust certificates, 19 to 20; do. preferred, trust certificates, 62½ to 63; do. dividend certificates, 80½ to 81; Virginia Midland 5th, 105; Baltimore & Ohio Railroad stock, 100¾; Fairmont Coal 5s, 95½; Maryland Electric 5s, 97¼ to 97½; Washington, Baltimore & Annapolis preferred, 36 to 35¾; Lake Roland elevated 5s, 107; Baltimore Electric 5s, stamped, 99¼ to 99; Consolidation Coal refunding 5s, 90½; Alabama Consolidated Coal & Iron 5s, 77 to 80; Jacksonville Gas 5s, 96; New Orleans, Mobile & Chicago 5s, 84¾; Charleston Consolidated Electric 5s, 97; Baltimore City 4s, 1961, 96¾; Georgia, Carolina & Northern 5s, 104½; Baltimore, Sparrows Point & Chesapeake 4½s, 95¾; Norfolk Railway & Light 5s, 99½ to 99¾; Washington, Baltimore & Annapolis 5s, 87½ to 87¾; Gary & Interurban notes, 98½; Maryland Motor Car Insurance, 110¾; Northern Central Railway stock, 122; Baltimore City 5s, 1916, W. L., 102¾; Atlantic Coast Line convertible debenture 4s, 97½.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended March 5, 1913.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	123½	125½
At. Coast of Conn.....	100	248½	251
Georgia Sou. & Fla. 2d Pfd.....	100	80½	82
Maryland & Pennsylvania.....	100	80½	82
Seaboard Con.....	100	183½	184½
Seaboard Pfd.....	100	44	44½
United Ry. & Elec. Co.....	50	23½	24

Bank Stocks.	Par.	Bid.	Asked.
Bank of Baltimore.....	100	178½	184
Bank of Commerce.....	100	31	32
Citizens'.....	100	42	42½
Drovers & Mechanics.....	100	225	240
Exchange.....	100	161½	164
Farmers & Merchants.....	40	49	50
First National.....	100	142½	145
German-American.....	100	108	110
Howard.....	100	14	15
Marine.....	20	43	45
Maryland.....	20	33½	34½
Merchants-Mechanics.....	100	111½	117
National City.....	100	143	143½
Union.....	20	41½	42
Western.....	20	41½	42

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Colonial Trust.....	50	28½	29½
Continental Trust.....	100	214½	216
Fidelity & Deposit.....	50	176½	177½
Maryland Casualty.....	25	105	106
Maryland Trust.....	100	117	119½
Maryland Trust Pfd.....	100	118	119
Mercantile Trust & Dep.....	50	158	159
Munsey Trust.....	100	106	108
U. S. Fidelity & Guaranty.....	100	192½	199

Miscellaneous Stocks.	Par.	Bid.	Asked.
Con. Gas, Elec. Lt. & P. Com.....	100	111	115
Con. Gas, Elec. Lt. & P. Pfd.....	100	117	119
Consolidation Coal.....	100¾	102½	103
Baltimore Brick.....	100	20	21
Baltimore Electric Pfd.....	44½	46	47

Railroad Bonds.	Par.	Bid.	Asked.
Alabama Midland 5s.....	100½	107½	108
Atlantic Coast 1st 4s.....	93½	94½	95
At. Coast Conv. Deben. 4s.....	97½	97½	98
At. Coast Conn. 4s, Cfs, 5-20s.....	90½	92	93
At. Coast Unified 4s.....	89	89	90
Coal & Coke Railway 5s.....	95½	95½	96
Coal & Iron Railway 5s.....	99½	100¼	101
Col. & Green, 1st 6s.....	103½	104	105
E. Tenn., Va. & Ga. Div. 5s.....	105	105	106
Florida Cent. & Penin. 5s.....	105	106	107
Ft. Worth & Den. City 6s.....	107½	108	109
Georgia & Alabama 5s.....	103½	104½	105
Ga., Car. & North, 1st 5s.....	103½	104½	105
Georgia Pacific 1st 6s.....	109½	112½	113
Georgia Sou. & Fla. 1st 5s.....	104	105½	106
Macon, Dublin & Savannah 5s.....	98¾	100	101
New Orleans-Gt. Nor. 5s.....	68½	68½	69
Norfolk & Carolina 5s.....	107½	108	109
New Orleans, M. & C. 5s.....	83½	85	86
Potomac Valley 1st 5s.....	107½	108	109
Richmond & Danville 6s.....	102	103	104
Dich. & Dan. Deben. 5s.....	103	104½	105
Sav., Fla. & West. 5s.....	109	109	110
Seaboard 4s, Stamped.....	84	84½	85
Seaboard Adjustment 5s.....	71	71	72
Seaboard & Roanoke 5s.....	104	105	106
Suffolk & Carolina 5s.....	103	103	104
Virginia Midland 4th 5s.....	104½	105¼	106
Virginia Midland 5th 5s.....	104½	105¼	106
Virginia Midland 6th 5s.....	105½	106	107
Wash., Balto. & Annap. 5s.....	87½	88	89
Western N. C. Con. 6s.....	101¼	101½	102
Wilmington & Weldon 5s.....	109	109	110

Street Railway Bonds.	Par.	Bid.	Asked.
Anacostia & Potomac 5s.....	99¾	100	100½
Anacostia & Potomac 5s, Gtd.....	100¾	101	101½
Balto., Sp. Pt. & C. 4½s.....	95½	96	96½
Baltimore Traction 1st 5s.....	105	105	106
Charleston City Railway 5s.....	102½	104	105

Charleston Con. Elec. 5s.....	96½	97
City & Suburban 5s (Balto.).....	104½	105
City & Suburban 5s (Wash.).....	103	103½
Danville Traction 5s.....	94	95
Fairmont & Clarksburg Trac. 5s.....	100½	100¾
Knoxville Traction 5s.....	105	105
Lake Roland Elevated 5s.....	107	107½
Maryland Electric Railways 5s.....	97¼	97½
Memphis Street Railway 5s.....	97	97½
Metropolitan 5s (Wash.).....	105½	106
Monongahela Val. T. 5s.....	96	96
Newport-News & Old Point 5s.....	100½	101
Norfolk & Atlantic T. 5s.....	94	95
Norfolk & Portsmouth Trac. 5s.....	90¼	91¼
Norfolk Railway & Light 5s.....	99½	100
Norfolk Street Railway 5s.....	107½	108
United Railways 1st 4s.....	84½	84½
United Railways Income 4s.....	63¼	63½
United Railways Funding 5s.....	87	87½
United Railways Notes.....	101	102
Virginia Railway & P. 5s.....	94	94½

Miscellaneous Bonds.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron 5s.....	79½	81	82
Baltimore Brick 5s.....	83	83	84
Baltimore Electric 5s, Stp.....	98½	99½	100
Consolidated Gas 5s.....	106½	108	109
Consolidated Gas 4½s.....	94½	95	96
Con. Gas, Elec. Lt. & P. 4½s.....	89¼	89½	90
Consolidation Coal Refd. 4½s.....	90	91¼	92
Fairmont Coal 1st 5s.....	95½	96	96½
G. B. S. Brewing 1st 4s.....	47	48	49
G. B. S. Brewing Income 5s.....	8	9½	10
Jamison Coal & Coke 5s.....	93	93	94
Mt. Vernon-Woodb'y Cot. Duck 5s.....	75½	76	77
Penna. Water & Power 5s.....	93	93	94
United Elec. Lt. & P. 4½s.....	91½	93	94

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending March 3.

Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	100
Alken Mfg. Co. (S. C.).....	55
American Spinning Co. (S. C.).....	162
Anderson Cotton Mills (S. C.).....	48
Anderson Cot. Mills (S. C.) Pfd.....	100
Arcadia Mills (S. C.).....	90
Arkwright Cotton Mills (S. C.).....	99
Belton Mills (S. C.).....	100
Brandon Mills (S. C.).....	80
Brogan Mills (S. C.).....	60
Chickamauga Mfg. Co. (S. C.).....	160
Clifton Mfg. Co. (S. C.) Pfd.....	99
Clinton Cotton Mills (S. C.).....	100
Courtney Mfg. Co. (S. C.).....	93
Dallas Mfg. Co. (Ala.).....	99
D. E. Converse Co. (S. C.).....	75
Drayton Mills (S. C.).....	90
Eagle & Phenix Mills (Ga.).....	106
Easley Cotton Mills (S. C.).....	162
Enoree Mfg. Co. (S. C.).....	25
Enoree Mfg. Co. (S. C.) Pfd.....	95
Gaffney Mfg. Co. (S. C.).....	65
Gainesville Cotton Mills (S. C.).....	70
Glenwood Cotton Mills (S. C.).....	100
Graniteville Mfg. Co. (S. C.).....	135
Greenwood Cotton Mills (S. C.).....	67
Grendel Mills (S. C.).....	90
Hartsville Cotton Mill (S. C.).....	175
Henrietta Mills (N. C.).....	160
Inman Mills (S. C.).....	99
King Mfg. Co., J. P. (Ga.).....	80
Lancaster Cotton Mills (S. C.).....	130
Lancaster Cot. Mills (S. C.) Pfd.....	97
Langley Mfg. Co. (S. C.).....	75
Laurens Mills (S. C.).....	115
Limestone Mills (S. C.).....	155
Lockhart Mills (S. C.).....	50
Lockhart Mills (S. C.) Pfd.....	95
Loray Cotton Mills (N. C.) Pfd.....	90
Mariboro Cotton Mills (S. C.).....	70
Mills Mfg. Co. (S. C.).....	99
Molokan Mfg. Co. (S. C.).....	90
Monarch Cotton Mills (S. C.).....	110
Norberry Cotton Mills (S. C.).....	125
Ninety-Six Cotton Mills (S. C.).....	130
Norris Cotton Mills (S. C.).....	115
Orr Cotton Mills (S. C.).....	90
Pacolet Mfg. Co. (S. C.).....	99
Pacolet Mfg. Co. (S. C.) Pfd.....	95
Parker Common.....	20
Parker Pfd.....	63
Pelzer Mfg. Co. (S. C.).....	120
Poe Mfg. Co., F. W. (S. C.).....	98
Saxon Mills (S. C.).....	130
Spartan Mills (S. C.).....	110
Trion Mfg. Co. (Ga.).....	130
Union Mfg. Co. (S. C.).....	310
Union-Buffalo (S. C.) 1st Pfd.....	50
Union-Buffalo (S. C.) 2d Pfd.....	5
Victor Mfg. Co. (S. C.).....	110
Warren Mfg. Co. (S. C.).....	80
Warren Mfg. Co. (S. C.) Pfd.....	100
Washington Mills (Va.).....	25
Washington Mills (Va.) Pfd.....	106
Watts Mills (S. C.).....	50
Whitney Mfg. Co. (S. C.).....	105
Williamson Mills (S. C.).....	120
Wiscasset Mills (N. C.).....	135
Woodruff Cotton Mills (S. C.).....	95
Woodstock Cotton Mills (S. C.).....	100

FINANCIAL CORPORATIONS.

Ala., Cragford.—The Bank of Cragford is reported being organized with \$25,000 capital by W. H. Reddock of Ashland and others.

Ala., Decatur.—The City National Bank is chartered; capital \$100,000; John D. Wyker, president; J. H. Calvin, first vice-president; R. P. McIntire, second vice-president; A. E. Jackson, cashier.

Ark., Rudy.—The Bank of Rudy has filed articles of incorporation; capital \$10,000. Incorporators, W. D. Cooper, E. E. Rudy, H. D. Lathrop and others.

Ark., Garfield.—The Bank of Garfield, capital \$10,000, is reported organized with A. B. Wilson president, W. M. Humphreys vice-president and J. L. Herod secretary.

Ark., Hartford.—The Bank of Commerce has filed articles of incorporation; capital \$10,000; organizers, Ezra J. Morgan, E. O. Simpson and C. W. Morgan.

Ark., Scotland.—The Bank of Scotland chartered and incorporated; capital \$10,000; N. A. Simpson, president; A. M. Griggs,

vice-president, and J. H. Lindsey, cashier. Business is to begin March 20.

Ark., Van Buren.—The Van Buren Abstract Co. has filed articles of incorporation; capital \$2500; M. L. McCabe, president; S. B. Hawkins of Mulberry, vice-president; Gilliam C. Yoes, secretary and treasurer.

Fla., Chula Vista.—The Chula Vista Investment Co. will apply for articles of incorporation; capital \$300,000. The officers will be M. M. Smith, president; W. M. Davis, vice-president; L. A. Hough, secretary and treasurer.

Fla., Jacksonville.—The American Trust Co. has begun business with offices in the Florida Life Bldg.; capital \$200,000. Fred W. Hoyt is president. (See Manufacturers Record, January 30.)

Fla., Orlando.—The Orange County Investment Co. gives notice that it will apply for charter; authorized capital, \$24,000. The officers will be Albert J. Taylor, president; H. Carl Dann, vice-president, and George T. Barr, secretary and treasurer.

Fla., Tallahassee.—The Citizens' Bank of Tallahassee, capital \$50,000, began business February 4 with Jno. A. McLaurin of Tallahassee, president; R. A. McTiger of Atlanta, Ga., vice-president; J. M. Fleming, cashier, and Walker Minter, assistant cashier, both of Tallahassee; C. R. McLaurin and L. O. Burton of Monticello, Ga., directors.

Fla., Tallahassee.—The Exchange Bank, chartered with \$50,000 capital, began business March 3; C. L. Mizell, president; E. H. Alford, J. W. Collins and Chas. Munroe, vice-presidents; C. H. Parks, cashier, and John Choate, assistant cashier. (See Manufacturers Record, February 27.)

Ga., Crossville.—The Bank of Crossville has begun business; capital \$20,000. Ulay W. Black of Georgiana is president. (See Manufacturers Record, January 23.)

Ga., Hartwell.—Local parties are reported organizing a new bank.

Ga., Norristown.—The Bank of Norristown has made application for charter; capital \$25,000. Incorporators, C. R. Williams of Dublin, J. W. Smith, A. M. Thigpen, Mrs. Amanda Thigpen, A. L. Horton, J. L. Gillis and others.

Ga., Reynolds.—The Reynolds Banking Co. is chartered with \$25,000 capital; incorporators, T. W. Pool, G. T. Ruffin, J. A. Whitney and others of Reynolds. R. A. Hinton of Reynolds, who is also an incorporator, will be the cashier.

La., Alexandria.—T. K. Giddens of Campit, La., proposes, it is stated, to organize a bank and trust company with \$150,000 capital.

La., Ville Platte.—A new national bank is to be established, it is reported, with H. Rene L. Derouen as president.

Md., Baltimore.—The Alpha Permanent Building Association, capital \$50,000, is organized with George König, president; Chas. M. Childs, vice-president; Thos. H. Durkin, secretary; James E. Hubbert, treasurer.

Miss., Ocean Springs.—The Farmers and Merchants' State Bank, capital \$25,000, began business February 3. Directors: Chas. E. Pabst, president; G. E. Arndt, vice-president; E. R. Glascock, cashier; L. W. Simmons, W. E. Wilson, G. E. McEwen and E. S. Davis.

Miss., Tutwiler.—The Progressive State Bank has filed its charter; capital \$20,000; incorporators, Jos. Engler, Jr., W. D. Corley, A. J. Rylee and J. L. Donald.

Mo., St. Louis.—The Meramec Trust Co. has applied for articles of incorporation; capital \$100,000. Incorporators, Henry Carter, Emil Frei, Gottlieb Huebner, Bernard E. Grace, William G. Arpe, Joseph F. Kukla, J. Walter Pruett, Fred C. Freiburg, Jacob L. Leindecker, Oliver J. Grace, Frank A. Knopstein, Edward J. O'Neill and C. S. Marsh. Henry F. Reis will be president and Fred Krone secretary and cashier. Offices will be at the Southeast corner of

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JOHN B. H. DUNN, Cashier.Capital \$2,000,000 Deposits \$21,670,000
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Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.

The First National Bank
17 South St., Baltimore, Md.Capital - - - - - \$1,000,000
Surplus and Net Profits - - - 400,000
Deposits - - - - - 6,500,000

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Hopkins Place, German and Liberty Streets

Capital, \$1,000,000

July 15th, 1908, Surplus and Profits, \$671,631.60

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SUMMERFIELD BALDWIN, Vice-Pres.
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C. G. MORGAN, Asst. Cashier.

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Surplus - - - - - \$3,000,000Thoroughly organized to exercise all Banking and Trust Company functions.
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organizing the Dime Savings Bank of Anderson with capital of \$25,000.

S. C., Greenville.—The Mountain City Fire Insurance Co. has been granted a commission; capital \$50,000. Petitioners, Thos. F. Parker, J. F. Gallivan, J. W. Norwood, W. C. Cleveland, Wm. F. Robertson, C. O. Allen, J. H. Morgan and T. F. Hunt.

Tenn., Clifton.—A new bank is reported organized to succeed the People's Bank of Clifton; capital \$50,000; W. B. Newcomb of St. Joseph, La., will be president.

Tenn., Nashville.—The American Securities Co., capital \$50,000, has filed application for charter; incorporators, B. B. Coffey, Crowell Baptist, M. S. Roach and A. W. McClue.

Tenn., Nashville.—The Lincoln Fire Insurance Co. has made application for charter; capital \$100,000; incorporators, A. S. Britt, W. L. Loone, G. W. Brown, E. T. Lee and Chester K. Hart.

Tex., Atlanta.—The Farmers' State Bank, capital \$25,000, is incorporated by J. P. Warren, C. A. Perkins and C. W. McClung.

Tex., Big Lake.—Plans are reported under way to organize a State bank with \$15,000 capital. J. M. Shannon, it is said, will be president and Roy Japson cashier.

Tex., Bloomington.—A State bank capitalized at \$10,000 is organized with S. M. Crum president and N. M. Bartley cashier; directors, M. Welder and T. P. Traylor of Victoria, N. M. Bartley of San Antonio, J. W. Coffman and S. M. Crum of Bloomington.

Tex., Brandon.—The Farmers' State Bank, capital \$20,000, is incorporated by D. A. Giles, R. F. Siddons and W. L. Wray.

Tex., Dallas.—The Merchants' National Bank has begun business; capital \$250,000. L. L. Jester is president. (See Manufacturers Record, February 13.)

Tex., Denton.—The Denton County Building and Savings Association, capital \$40,000, is organized with the following directors: J. R. Christal, J. W. Sullivan, W. T. Bailey, L. H. Brady, W. F. Jarrell, J. M. Gurley, E. R. Johnson, William O. Taylor and J. F. Raley.

Tex., Hughes Springs.—The Guaranty State Bank is chartered with \$25,000 capital; incorporators, J. K. Guinn, S. J. Eubanks and J. W. Reeder.

Tex., Hutchins.—The Citizens' Guaranty State Bank is incorporated with \$16,000 capital by D. E. Waggener, W. O. Langdon and J. W. Sears.

Tex., Lone Oak.—The Guaranty State Bank, capital \$50,000, is incorporated by C. G. Barnes, J. D. Edge and W. C. Dowell.

Tex., Petty.—The Citizens' State Bank of Petty has applied for charter; capital \$50,000. A. Collier, president; R. O. Bradshaw, vice-president; Jack Adams, cashier, and B. Poteet, assistant cashier.

Tex., Placedo.—The Placedo State Bank organized with the following officers: Frank S. Buhler, president; John W. Henderson, first vice-president; J. O. West, second vice-president; L. B. Manry of Teague, Tex., cashier; directors, J. F. Welder, F. S. Buhler, J. W. Henderson, J. H. West, J. O. King, L. B. Manry and Frank W. Wick. Business is expected to begin within 60 days.

Va., Radford.—The Radford State Bank, incorporated, began business March 3 with \$25,000 capital. Directors: John G. Osborne, president; A. P. Goldsmith, vice-president; R. M. Chumley, H. T. Roberts, I. L. Einstein, W. W. Wright and H. T. Einstein. John L. Einstein is cashier.

Va., Richmond.—The Mortgage Guaranty Corporation, capital \$10,000 to \$100,000, is organized with John Skelton Williams president, E. L. Beniss vice-president, R. J. Willingham, Jr., secretary and treasurer, all of Richmond; directors, John Skelton Williams, E. L. Beniss, S. D. Seudder, S. M. Woodward and J. M. Beasley.

W. Va., Worthington.—The First National Bank is reported being organized with G. W. Millan president and Z. F. Davis secretary.

NEW SECURITIES.

Ala., Gadsden.—J. H. Holcombe, Mayor, writes that city is not contemplating any bond issue just at present. (See Manufacturers Record, February 27.)

Ala., Guntersville.—March 31 Marshall county will vote on \$130,000 of road bonds.

Ala., Hurtsboro.—Voted February 20: \$14,000 of 5 per cent. water, light and sewer bonds. As soon as the proper ordinances are passed providing for the issue, the bonds will be offered for sale. Address Wheeler Williams, Mayor.

Ala., Huntsville.—It is proposed to hold an election in Madison county to vote on \$125,000 of courthouse bonds.

Ala., Oneonta.—On April 3 an election is to be held in Blount county to vote on \$150,000 of road bonds.

Ark., Little Rock.—A bill is before the Legislature providing for the issuing of \$750,000 of bonds to meet the present deficiency in the general revenue fund.

Ark., St. Francis.—Application is to be made to the Legislature for authority to issue \$1,500,000 of bonds of St. Francis levee district.

Fla., Madison.—On February 4 Madison county voted \$50,000 of 5 per cent. 30-year courthouse bonds.

Fla., Mulberry.—Bids will be received until April 1 by H. J. Koerner, City Clerk and Treasurer, for the following 6 per cent. 20-year bonds: \$20,000 for water-works, dated March 1, 1910; \$20,000 for sewerage purposes, dated January 1, 1913; \$5000 for water-works, dated January 1, 1913. Denomination \$1000. Further particulars will be found in the advertising columns.

Fla., Orlando.—Bids will be received until noon March 27 for \$140,000 of 5 per cent. sewerage bonds; denomination, \$1000 and \$5000; E. G. Duckworth, E. F. Sperry and D. Lockhard, bond trustees. Further particulars will be found in the advertising columns.

Ga., Alamo.—An election is to be held March 21 to vote on \$50,000 of bonds for erecting public buildings for the new county of Wheeler.

Ga., Alamo.—Reported that an election will be held in the near future to vote on \$10,000 of school-building bonds.

Ga., Athens.—March 25 election will be held to vote on \$75,000 of street-improvement and \$100,000 of school 4½ per cent. 30-year bonds; dated July 1, 1913; maturity June 30, 1943. W. L. Wood is Clerk.

Ga., Buena Vista.—March 10, it is stated, Marion county will vote on \$50,000 of road bonds.

Ga., St. George.—C. P. Osterman, School Commissioner, denies report that election is to be held to vote on school bonds.

Ga., Summerville.—On March 29 an election will be held to vote on \$18,000 of 5 per cent. school-building bonds.

Ga., Washington.—Bids will be received until noon March 17 for \$30,000 of 5 per cent. paving bonds, voted June 26, 1912; denomination \$1000; dated January 1, 1913; maturity July 1, 1942. Address A. G. Cozart, Clerk of Council.

Ky., Allany.—March 29 an election is to be held to vote on \$50,000 of 4 per cent. 30-year Clinton county road bonds. Address W. E. Beard.

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Ky., Danville.—Bids will be received until 2 P. M. March 15 for \$18,000 of sewer and \$10,000 of water-works 4½ per cent. 1-18 year bonds. Denomination \$500 and \$1000. Address J. M. Wallace, Mayor. Further particulars will be found in the advertising columns.

Ky., Horse Cave.—Bids will be opened on March 4 for \$12,000 of 5 per cent. 20-year school bonds. Address Wm. A. McGuire, secretary Board of Education. Cyrus Edwards is City Clerk.

Ky., Shelbyville.—The \$75,000 of 5 per cent. Shelby county courthouse bonds offered March 1 were awarded as follows: People's Bank & Trust Co. of Shelbyville, \$74,000 at a

premium of \$1191.59 and accrued interest; D. N. Sharp of Richmond, Ky., \$1000 at \$1000.

La., Baton Rouge.—Bids will be opened some time in April for \$11,108,300 of 4 per cent. 50-year bonds for refunding the existing bonded indebtedness of State. Denomination: \$100, \$500 or \$1000, to suit purchaser. Dated July 1, 1913. Address L. E. Hall, Governor and ex-officio chairman of the State Board of Liquidation of the State Debt of Louisiana.

La., Donaldsonville.—It is proposed to issue \$50,000 of 5 per cent. 20-year road-improvement bonds.

[For Additional Financial News, See Page 84.]

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We will prosper only as Alabama and the South prosper.

Our aim is to bring into this state the best class of industrial and business enterprises that can be procured.

We will put our best efforts into this work.

We feel confident that every man and every enterprise in the whole State will take an active interest in this work. We want to co-operate with manufacturers, bankers, merchants and all business men for the most complete upbuilding of Alabama.

Our first move in this work is to disseminate accurate information covering the extent, variety and possibilities of the manifold resources and advantages of Alabama. Upon these has been and will be builded lasting and big business successes.

To those who want to know and want to profit by the opportunities here we invite a study of the facts which will follow from week to week in the Manufacturers Record. And we will be glad to see or hear from any responsible party wanting information.

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Mid., Easton.—John D. Howard & Co. and Strother, Brogden & Co. were awarded jointly \$30,000 of 5 per cent. Talbot county bonds. Joseph B. Harrington is County Treasurer.

Miss., Jackson.—It is proposed on April 1 to sell \$11,000,000 of State bonds.

Miss., Meridian.—Bids will be received until 2 P. M. March 5 for \$100,000 road bonds of District No. 1, Lauderdale county; denomination \$500; dated March 1, 1913; maturity March 1, 1923 to 1928. W. R. Pistole is Clerk of the Chancery Court of Lauderdale County.

Miss., Monticello.—Supervisors have authorized the issuing of \$65,000 of 6 per cent. 25-year bonds of road district No. 1, Lawrence county.

Mo., Arcadia.—Voted: \$38,000 of electric-lighting plant bonds.

Mo., Independence.—Of the \$40,000 of 20-year bonds offered February 25, William H. Waggoner purchased \$10,000, and the Chrisman-Sawyer Bank, of which Mr. Waggoner is president, \$20,000. The bonds sold at 104½. The purchasers were represented by Albert M. Ott.

Mo., Joplin.—March 11 an election will be held to vote on \$50,000 of 5 per cent. 5-20-year bonds for addition to city light plant. Denomination \$500. Address Board of Public Works, W. L. Butts, president; 314 Main St.

Mo., Kansas City.—Voted January 7: \$850,000 of 20-year bonds for flood protection and tuberculosis hospital; denomination \$1000; date for opening bids not yet decided. M. A. Flynn is Comptroller.

N. C., Charlotte.—Application is to be made to the Legislature for authority to issue \$325,000 of Mecklenburg county funding bonds.

N. C., Durham.—The Legislature has authorized city to issue \$500,000 of water-works bonds.

N. C., Gastonia.—Cutter, May & Co., Chicago, purchased on February 25 at \$71,127 the \$70,000 of 5 per cent. 30-year water, sewerage, light, street and school bonds voted November 30, 1912; dated March 1, 1913; maturity March 1, 1943. John R. Rankin is City Clerk.

N. C., Greensboro.—A bill has been prepared providing for the issuing of 5 per cent. 30-year bonds, amount not to exceed \$100,000, by any public school district in Guilford county.

N. C., Hillsboro.—The \$230,000 of 5 per cent. 40-year Orange county road improvement bonds have been purchased by Paul C. Collins of Hillsboro at a premium of \$4715.

N. C., Kinston.—Voted: \$15,000 of bonds for North Carolina School for the Feeble-Minded.

N. C., Oxford.—March 29 an election will be held to vote on \$20,000 of graded school district bonds. Address Board of Commissioners of Oxford. W. Z. Mitchell, chairman. D. G. Brummit is Mayor.

N. C., Scotland Neck.—April 1 an election is to be held to vote on \$16,000 of 6 per cent. 50-year school-building bonds. J. E. Shields is Mayor.

Okl., Hennessey.—Hennessey school district has voted \$15,000 of school bonds.

S. C., Greenville.—The City Council will in the near future sell \$15,000 of refunding bonds.

S. C., Greenville.—R. M. Grant & Co., Chicago, have purchased at \$634.55 premium the \$50,000 of 6 per cent. 1-4-year paving certificates. C. Frank League is City Clerk and Treasurer.

S. C., Ridgeland.—A bill has been introduced in the Legislature authorizing Jasper county to hold an election to vote on \$20,000 of courthouse and jail bonds.

Tenn., Greeneville.—The \$500,000 of bonds to be voted on March 29 by Greene county and city of Greeneville are for road improvement and water-works.

Tenn., Morristown.—Bids will be received until March 15 for \$20,000 of 5 per cent. 10-year street-paving bonds. Address W. D. Bushong, City Treasurer.

Tex., Austin.—The Attorney-General has approved the following securities: \$130,000 of 5 per cent. 10-40-year bonds of Limestone county road district No. 4; \$10,000 of 5 per cent. Granger independent school district bonds; \$1000 of 5 per cent. 10-20-year Limestone county common school district bonds; \$47,533 of 5 per cent. bonds of Brazoria county drainage district No. 9; \$16,000 of 5 per cent. 20-40-year Madisonville water-works bonds.

Tex., Bay City.—Voted: \$300,000 of Matagorda county good-roads bonds. It is stated that \$100,000 of the bonds have already been contracted for by a Chicago firm at a premium of \$2000.

Tex., Carrizo Springs.—Bids will be received until 10 A. M. March 17 for \$9000 of 5 per cent. 20-40-year street bonds; denomination \$1000; dated April 10, 1912. A. P. Johnson is City Clerk.

Tex., Columbus.—An election is to be held in Eagle Lake Justice Precinct, road district No. 1, to vote on \$100,000 of road-improvement bonds.

Tex., Dallas.—April 1 election will be held to vote on \$250,000 of school, \$500,000 of park and playground and \$400,000 of municipal lighting-plant bonds. Address Board of Education.

Tex., Fort Worth.—The City Commission has decided that the election to vote on \$20,000 of water-works bonds be held April 8 instead of March 14, as previously stated.

Tex., Ensign.—Regarding report that Ensign school district proposes holding an election to vote on high-school building bonds, W. D. Farris, president of Ensign School Board, writes: "No bond issue ordered. We are endeavoring to secure a new charter for Ennis, and if we get it with greater bonding power, will issue \$100,000."

Tex., Houston.—Bids will be received until noon March 10 for \$1,000,000 4½ per cent. 30-40-year Harris county special road bonds. W. H. Ward is County Judge.

Tex., Houston.—Bids will be received until March 15 for \$100,000 of 4½ per cent. 30-40-year Harris county road and bridge bonds.

Tex., Jacksonville.—An election is to be ordered to vote on bonds for water-works. It is thought that between \$30,000 and \$40,000 will be required.

Tex., Orange.—March 4 an election was held to vote on \$20,000 of street-improvement bonds.

Tex., Richmond.—Wm. R. Compton & Co., Chicago, have been awarded \$175,000 of 5 per cent. 10-40-year Fort Bend county road district No. 4 road bonds.

Tex., Rogers.—Application is to be made to the City Council, it is reported, asking that an election be called April 1 to vote on bonds for sewer system.

Tex., Rockdale.—Voted: \$50,000 of water-works bonds.

Tex., New Boston.—Voted: \$15,000 of water-works bonds.

Tex., San Diego.—The election to vote on \$100,000 of Duval county courthouse-construction bonds will, it is said, be held May 3.

Tex., Spur.—Voted February 17: \$25,000 of 5 per cent. 10-40-year water-works bonds.

Tex., Temple.—The City Council has adopted a resolution calling for an election April 1 to vote on \$75,000 of sanitary sewer bonds.

Tex., Waco.—Bids will be received until 10 A. M. March 11 for \$120,000 of school, \$100,000 of street and \$25,000 of sewer 5 per cent. 30-year bonds; denomination \$1000. Address Thomas A. Caulfield, Finance Commissioner.

Tex., Wichita Falls.—Wichita Falls independent school district will soon vote on \$50,000 of building bonds.

Va., Lunenburg.—Mayer, Deppe & Walter of Cincinnati were awarded at \$168.60 the \$20,000 of 20-year Lunenburg county road bonds.

Va., Marion.—On December 30 Marion district voted \$150,000 and St. Clair district \$75,000 of 5 per cent. 10-30-year road-improvement bonds. Denomination \$1000; dated April 1, 1913. On February 19 Elliott & Harrison, Cincinnati, O., purchased \$60,000 of the former at \$60.025 and \$30,000 of the latter at \$30.025. Address Board of Supervisors of Smyth County. H. L. Kent is District Clerk.

Va., Matocca.—March 8, it is reported, an election is to be held in Matocca school district to vote on school bonds.

Va., Massies Mill.—March 16 an election is to be held to vote on \$35,000 of municipal improvement bonds.

Va., Petersburg.—Bids will be received until 4 P. M. March 20 for \$100,000 of 4½ per cent. 40-year permanent public-improvement bonds, being part of an authorized issue of \$300,000; denomination \$1000 and \$500; dated October 1, 1912. Address N. T. Patteson, chairman committee on finance. Further particulars will be found in the advertising columns.

Va., Wise.—Lipps district, Wise county, is considering the question of voting on road bonds. Address J. L. Addington, Supervisor.

W. Va., Moundsville.—Bids will be received until 2 P. M. March 25 by J. E. Chase, Clerk, Marshall county, for \$50,000 of 5 per cent. Union district road bonds. Denomination \$1000. Dated January 1, 1913. Maturity Jan-

uary 1, 1923, to January 1, 1931. These bonds are part of the \$150,000 voted November 5, 1912. B. B. McMechen is president County Court of Marshall County.

W. Va., Parkersburg.—A special election is to be held in April to vote on 4 per cent. school bonds.

W. Va., Wheeling.—Bids will be received until 3 P. M. March 27 for \$4500 of \$31,000 street-improvement bonds; denomination \$500; James P. Maxwell and George Hook, bond commissioners.

FINANCIAL NOTES.

The Guaranty State Bank & Trust Co. of Dallas, Tex., has decided to increase its capital to \$1,000,000.

The Knoxville Savings Bank of Knoxville, Tenn., has, it is reported, voted to increase its capital from \$25,000 to \$50,000.

The Citizens' Bank of Sarasota, Fla., has made application to convert into the First National Bank of Sarasota. Capital \$50,000.

The People's National Bank of Lynchburg, Va., is reported to have adopted a resolution to increase its capital from \$300,000 to \$500,000.

The Western Casualty & Guaranty Insurance Co. is reported to have moved its general offices from Dallas, Tex., to Oklahoma City, Okla.

The American National Bank of Austin, Tex., has been authorized to increase its capital from \$200,000 to \$300,000. George W. Littlefield is president.

The proposed merger of the International Life Insurance Co. and the Tennessee Life Insurance Co. of Nashville, Tenn., has been approved by commissioners of Missouri, Illinois and Arkansas.

The Phoenix-Third and the Lexington Banking & Trust Co., both at Lexington, Ky., are reported to have consolidated under the name of the former institution. Younger Alexander will be president.

During January 21 new State banks were chartered and opened in Texas with an aggregate capital of \$845,000. Ten banks already established increased their capital stock, the increase aggregating \$401,000.

An address on "Credit" by Beverly D. Harris, vice-president of the South Texas Commercial National Bank, Houston, Tex., before the Fourth District Bankers' Association at Waco, Tex., February 18, 1913, is issued in pamphlet form.

The National Exchange Bank and the Lynchburg National Bank, both of Lynchburg, Va., are reported planning to consolidate under the name of the latter institution. The capital and surplus of the new institution will be \$1,000,000.

A condensed statement of 759 State banks and banks and trust companies in Texas at close of business February 4, 1913, shows loans and discounts, personal and collateral, \$64,890,428; due from other banks and bankers, subject to check, \$31,303,041; capital stock paid in, \$28,223,500; surplus fund, \$5,621,134; undivided profits, net, \$3,033,652; due to banks and bankers subject to check, \$7,901,605; individual deposits subject to check, \$84,047,469; time certificates of deposits, \$5,529,599; demand certificates of deposit, \$521,200; total resources, \$137,628,551.

HOUSTON COTTON FACILITIES.

Planning \$1,500,000 Sheds, Compresses, Warehouses, Etc., on Ship Channel.

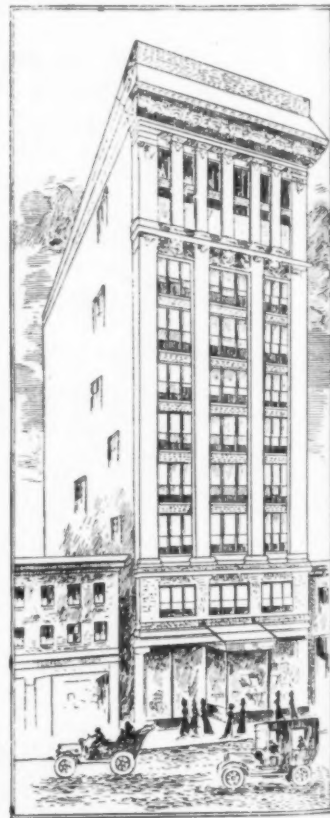
Additions to the cotton-handling facilities of Houston are being planned through the efforts of the Chamber of Commerce, and many leading business men of the city are interested. It is proposed to organize the Houston Cotton Terminal & Warehouse Co. with an authorized capital of \$1,000,000 to build the plant, which is to be located on the Houston ship channel, where a 240-acre site is available. It is proposed to build buyer sheds for a capacity of more than 60,000 bales of cotton, compress plant of 6250 bales capacity per 10 hours, warehousing for flat cotton on head of 100,000 bales, and warehousing for 100,000 bales of compressed cotton. Concrete fireproof construction, with sprinkler system, is contemplated, the plant to be built in units, and the estimated cost is \$1,500,000. The preliminary organization and plans are in charge of Messrs. W. B. Chew, J. S. Rice, W. C.

Munn, C. G. Pillott, Daniel Ripley, M. E. Andrews and John T. Scott.

Wanted for Sweden.

Lars Hamree, Vasagatan, 38, Stockholm, Sweden, writes to the MANUFACTURERS RECORD as follows:

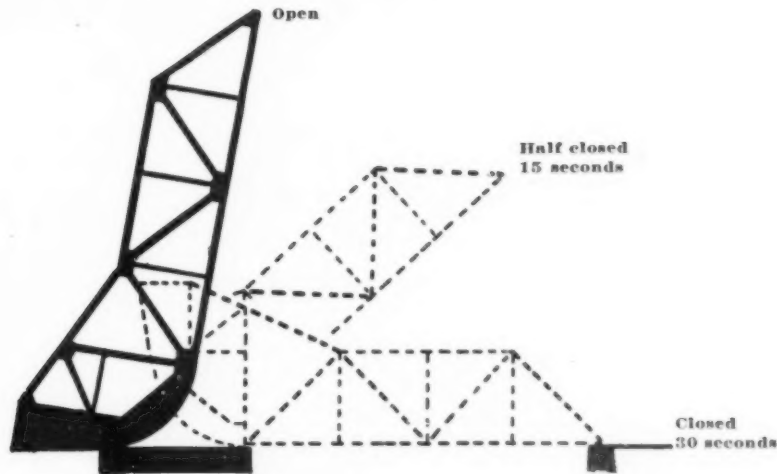
"I am doing business as agent on a commission basis; however, some small articles might be of interest for jobbing on own account. I am especially interested for agencies in tobacco leaf, cotton, lubricating oils and greases, cotton oil, grain, corn and fruits, machinery and hardwood for industrial purposes, as handles, etc. As we soon will get a direct line between Sweden and the States, there is a good prospect to sell American goods in this country. Tobacco is chiefly bought from Germany and the Netherlands, very little in shipments from the States. Now some manufacturers of cigars and tobacco here asked me to secure an agency in American leaf tobacco. In cotton I recently got a representation for a big concern in Smyrna, Asia Minor, but am open for proposition from American exporters. In oranges and grapes I represent two Spanish houses; in oils and greases, a London concern. A friend of mine, now selling a French motor car, is looking out for a good and cheap American-built car. If you happen to hear any manufacturer wishing to sell in this country, I invite correspondence. I have been employed for about seven years by a Dutch firm in colonial products as traveler in Scandinavia, the last three years, however, working on own account as agent. For particulars about my firm I refer to the General Swedish Exporters' Association of this city."



MODERN STORE FOR JACKSONVILLE.

To be erected for A. G. Rhodes, Atlanta; building 45x100 feet; 11½ stories and basement; reinforced concrete construction; fireproof; faced with white brick and terra-cotta; steam heat; electric and gas lighting; fireproof composition roof; one electric passenger and one electric freight elevator; reinforced concrete and glass sidewalks; cost \$100,000; architect, A. N. Canton, Atlanta; contractor, Pittman Construction Co., Atlanta; will be occupied by Rhodes-Futch-Collins Furniture Co., Jacksonville.

Scherzer ROLLING Lift Bridges cost less than other movable bridges because they are the EXTREME OF SIMPLICITY



Nearly 200 Scherzer Rolling Lift Bridges now in successful use in the United States, Canada, England, Ireland, Wales, France, Belgium, Holland, Russia, Egypt, Burma, India, South America, Hawaiian Islands, Mexico and other countries.

Scherzer ROLLING Lift Bridges are used *all over the world* because they use the only principle for moving a bridge that anyone would consider for moving any kind of land traffic. They ROLL (or rock) a short distance on *part* of a wheel, just as all land traffic rolls all distances on *whole* wheels.

But Scherzer ROLLING Lift Bridges have a great advantage over other ROLLING stock. They do not use friction-causing axles, trunnions and journals to support the bridge. Using only part of a wheel, they do away with this constant trouble and expense.

Scherzer ROLLING Lift Bridges ROLL upward and back, AWAY from the water, leaving the channel entirely clear in thirty seconds, also forming a signal and barrier against accidents. Or they roll forward and down, CLOSING the channel in thirty seconds. Traffic has practically no interruption because Scherzer ROLLING Lift Bridges do not START to open until a vessel is almost upon them and they close before it is more than a few feet away.

Scherzer ROLLING Lift Bridges combine economy, simplicity, efficiency. They adapt to movable bridges the greatest mechanical principle—the ROLLING principle.

Scherzer Bridge foundations are simpler and cost less because Scherzer Bridges are simpler and weigh less than any other movable bridge.

Send for list of cities and corporations using them. Sketches, estimates and information on receipt of data.



Scherzer Rolling Lift Bridge—Partly Open. Newburgh & South Shore Ry., Cleveland, O.



Eastern Office
220 Broadway, N.Y.

Scherzer
ROLLING Lift Bridge Co.
Main office Monadnock Block Chicago, U.S.A.



Cable Address
Scherzer Chicago

THE PENNSYLVANIA RAILROAD COMPANY.

General Office, Broad Street Station.

Philadelphia, February 28th, 1913.

The Board of Directors submit herewith to the Stockholders of The Pennsylvania Railroad Company a synopsis of their Annual Report for the year 1912:

Rail operations—Revenues.....	\$174,607,598 22
Rail operations—Expenses.....	126,637,944 59
Net revenue—Rail operations.....	\$47,969,653 63
Auxiliary operations—deficit.....	1,147,985 23
Net Railway operating revenue.....	\$46,821,668 40
Railway tax accruals.....	7,123,535 02
Railway operating income.....	\$39,698,133 38
Other income:	
Income from securities.....	\$14,527,491 56
Hire of equipment, etc.....	4,762,241 75
	19,289,733 31
Gross income.....	\$58,987,866 69
Deductions from gross income.....	16,828,902 66
Net income.....	\$42,158,964 03
Disposition of net income:	
Appropriations to sinking and other reserve funds.....	\$1,138,627 92
Portion of principal of equipment trust obligations.....	2,901,727 99
Cash dividends.....	27,188,918 00
Appropriations for Additions and Betterments.....	8,365,479 53
Construction expenditures on branch roads.....	888,107 06
	40,492,860 50
Balance transferred to credit of Profit and Loss.....	\$1,666,103 53

CONDENSED GENERAL BALANCE SHEET,

December 31st, 1912.

Assets.	
Property investment:	
Road.....	\$282,948,637 64
Equipment.....	154,130,678 53
	\$437,079,316 17
Reserve for accrued depreciation—Cr.....	14,086,588 29
	\$422,992,727 88
Securities owned.....	331,909,154 32
Securities under lease of U. N. J. R. R. & C. Co.....	2,559,658 25
Miscellaneous investments.....	1,929,509 60
Cash.....	30,297,297 25
Materials and supplies.....	15,434,219 43
Cash and securities in sinking, insurance and other reserve funds.....	24,686,149 81
Cash and securities in Provident Funds.....	6,616,863 23
Other assets.....	39,813,242 50
	\$886,179,022 27
Liabilities.	
Capital Stock.....	\$453,877,950 00
Premium realized on Capital Stock from January 1st, 1909.....	7,050,200 00
Funded Debt of The Pennsylvania Railroad Company.....	152,468,940 00
Funded Debt of Companies whose properties have been acquired by The Pennsylvania Railroad Company.....	54,334,500 00
Guaranteed Stock Trust Certificates, Philadelphia, Wilmington & Baltimore Railroad and New York, Philadelphia & Norfolk Railroad Companies.....	14,708,250 00
Equipment Trust Obligations.....	21,888,827 71
Mortgages and Ground Rents Payable.....	3,455,622 36
Securities received with the lease of the U. N. J. R. R. & C. Co.....	2,559,658 25
Liability on account of Provident Funds.....	6,616,863 23
Other Liabilities.....	44,049,638 57
Additions to property since June 30th, 1907, through income.....	52,439,753 37
Reserves from Income or Surplus:	
Invested in Sinking, Redemption and other reserve funds.....	35,745,431 46
Reserve for Additions and Betterments and Car Trust Principal charged out in advance.....	8,447,378 70
Profit and Loss.....	28,524,975 62
	\$886,179,022 27

The number of tons of freight moved on the five general divisions east of Pittsburgh and Erie in 1912 was 143,480,431, an increase of 18,295,363, or 14.62 per cent.; the number of passengers was 72,452,887, an increase of 5,075,173, or 7.42 per cent.

The number of tons of freight moved on the lines west of Pittsburgh was 165,449,782, an increase of 26,672,392. The number of passengers carried was 34,326,381, a decrease of 355,069.

The operating revenue of all lines east and west of Pittsburgh for the year 1912 was \$374,607,598.22; operating expenses, \$291,867,878.81, and operating income, \$82,739,719.41, an increase in operating revenue compared with 1911 of \$37,612,367.16, and an increase in operating income of \$7,039,773.63. There were 473,174,093 tons of freight moved on the entire system, being an increase of 59,555,772 tons, and 178,811,733 passengers carried, an increase of 9,816,577.

GENERAL REMARKS.

The Income Statement is in the form prescribed by the Interstate Commerce Commission, effective July 1st, 1912, which requires the statement of certain parts of the Income Statement in greater detail, as well as show-

The Railroad Companies east of Pittsburgh and Erie in which your Company is interested show satisfactory results. Detailed statements of their operations will be found in their respective annual reports, as well as in the full report of your Company.

There were expended during the past year for construction, equipment and real estate on the Lines West of Pittsburgh \$16,236,642.13.

The expenditures were principally for new ore docks at Cleveland, the elevation of tracks in that city, and also in Chicago and Fort Wayne; the construction of additional main tracks on the Pittsburgh, Fort Wayne & Chicago Railway, the Cleveland & Pittsburgh Railroad and the Pittsburgh, Cincinnati, Chicago & St. Louis Railway; land for new freight station at Indianapolis, increase in yard and station facilities at various points, and for additions to and improvement of the equipment.

ing the receipts and disbursements of certain accounts. The Company is further required to include the Income derived by Sinking and other Reserve Funds as part of its Income; but as it is not permitted to charge as a payment interest on any part of its bonds which may be held in any of the Sinking

ing or Trust Funds, such interest on bonds so held cannot be included in said Income. While these accounting changes result, therefore, in apparently swelling the Net Income of the Company to the extent of \$786,230.60, yet it is offset by corresponding necessary appropriations to these funds out of net income, which appropriations were formerly included in fixed charges.

This Statement shows that the total Rail Operating Revenues were \$174,607,598.22, the largest in the history of the Company, an increase of \$17,120,185.52, or 10.87% as compared with 1911.

The increased express traffic resulted in a greater gross return to the Company. The future effect of the parcel post on express revenue cannot as yet be determined, nor is it known what effect the change in express rates, ordered by the Interstate Commerce Commission, will have upon the revenue received from the Express Company operating over your lines.

In the transportation of United States Mails the revenues show a decrease, although the volume of the traffic increased. The rates are fixed by Congress, and there is a Congressional investigation of the subject at the present time. It is hoped that, after due consideration is given to the value of this service and to the special facilities it requires, remunerative rates will be paid.

Rail Operating Expenses are also the largest in the history of the Company, showing an increase of \$13,409,551.56, or 11.84%, caused principally by the increased traffic, which necessitated not only greater outlays for transportation expenses, but also for repairs and renewals of roadbed, bridges, and buildings, signals and interlocking and for other items which add to the safety and comfort of the patrons and employees of the road, as well as for repairs and renewals of equipment, and increased charges for Depreciation.

The expenses were further increased by the severe weather in January and February, 1912, and they also reflect increases caused by higher wages; the operation of the Extra Train Crew Law; increased cost of fuel and other materials, and improved standards of track and other construction to meet the requirements of heavier rolling stock.

In the wage questions that arose during the past year with the Enginemen and Firemen on the railroads in the Eastern District of the United States, represented by their respective Brotherhoods, a general strike was averted in the case of the Enginemen by the appointment of a special Board of Arbitration, consisting of seven members, one selected by the railroad companies, one by the Brotherhood of Locomotive Enginemen, and the other five appointed by the Chief Justice of the Supreme Court of the United States, the Presiding Judge of the Commerce Court and the United States Commissioner of Labor, collectively.

This Arbitration Board was constituted after attempts had failed to settle the difficulty through mediation under the Erdman Act, and because the parties in the controversy, while agreeing to the principle of arbitration, would not accept arbitration under the provisions of that Act.

In the difficulties of the present year with the Firemen, represented by the Brotherhood of Locomotive Firemen, a strike was averted by the railroad companies agreeing to submit to arbitration under the provisions of the Erdman Act, which they did not believe to be satisfactory, but accepted rather than impose on the country, the railroads and the employees the lamentable consequences of a general strike, involving over fifty railroads, having over 25% of the mileage and nearly 40% of the total Operating Revenues and Operating Expenses of all the railroads in the United States.

Considering the magnitude of the interests in this country and those countries with which it has commercial relations that would be affected by the interruption of railroad traffic, and the serious results that would ensue therefrom; the stoppage of food supplies, fuel and other traffic, the inconvenience, losses and suffering to the general public whose interest is paramount, and to the workers in other industries dependent on a reliable transportation service and in no way responsible for railway disputes, and the failure of strikes to produce any permanent advantages to either the employees and their families or to the transportation companies, careful consideration should be given to the recommendations for the amendment of the Erdman Act, which have been made from so many sources interested in the well-being of the country.

The experience arising from these larger wage controversies places a serious responsibility upon those whose duty it is to enact proper legislation governing the relations

between employer and employee, to consider whether the Erdman Act should not be amended to increase the number of arbitrators and thereby constitute a Board of sufficient size to properly represent the public as well as the parties to the controversy, and to direct the necessary far-reaching investigations and fully share the responsibility of an impartial determination of the equitable and economic questions arising from such disputes. It will also be found necessary to provide a longer time than thirty days specified in the Act for the consideration of the subject and the rendering of a decision.

It may not be possible to prevent strikes or lockouts by requiring compulsory arbitration, but it is wise to consider whether an obligation should not be placed upon the employer and employee to advise the authorities of the questions at issue before any lockouts or strikes can become effective, so that by due publication and inquiry the Government and the public may be fully informed of the extent of the controversy and its causes.

The net revenue of rail operations shows an increase of \$3,710,633.96.

Taxes continue to increase, the charges for the present year exceeding those of the previous year by \$332,649.28.

The tonnage for the year increased 14.52% and tonnage mileage increased 13.35%, while the freight train mileage increased only 10.57%, due to an increased train load of 2.17%.

The passengers carried increased 7.42%, with increased passenger mileage of 6.71%, while, in the face of this, the passenger train mileage increased only 1.88%, due to the average number of passengers per train increasing 4.81%.

In the deductions for lease of other roads the larger payments are due to the increased revenue earned on roads operated on the basis of Net revenue.

The decrease in the interest deductions for funded debt, compared with 1911, was due to the maturity and payment on May 1st, 1912, of the River Front Railroad Company First Mortgage Bonds, and on November 1st, 1912, of the Pennsylvania Railroad Company 3½% Convertible Bonds of 1902, and also to the payments of principal due on Equipment Trust Obligations.

The Company has in contemplation many important and extensive necessary improvements, a large portion of which should not be charged to Capital Account, and for which the Reserve for Additions and Betterments will be utilized, such as the improvements of Broad Street Station, Philadelphia, and its approaches and facilities; improvements on the Allegheny Division hereinafter referred to; the elimination of grade crossings and elevation of tracks on the New York Division, from Colonia eastward, through the City of Rahway, to Bay Way, Elizabeth, and a slight change of line in the City of Elizabeth, where the line has already been elevated. It also contemplates the abolition of additional grade crossings in Philadelphia, Lancaster, Lilly, Johnstown, Freeport, Wilkesburg, Pittsburgh, and other points on its lines when the local authorities co-operate in making the elimination. The Company also has in contemplation the construction of a new double-track steel bridge over the Allegheny River at Kiskiminetas Junction on an improved line to take the place of the present single-track bridge.

The Capital Stock was increased over the previous year by \$100, of which \$50 was issued in exchange for Fractional Convertible Bond Receipts, and \$50 for Dividend Scrip dated May 31, 1913.

The Funded Debt and Equipment Trust obligations were reduced as follows:

Redemption through Sinking Funds:	
Consolidated Mortgage 3½% Bonds, due July 1, 1945.....	\$66,920 00
Equipment Trust Loan, due 1914.....	121,000 00
Collateral Trust Loan Bonds, 4½%, due June 1, 1913.....	51,000 00
Philadelphia, Wilmington & Baltimore Railroad 4% Stock Trust Certificates, due July 1, 1921.....	111,000 00
Payment at Maturity of:	
Ten Year Gold Convertible 3½% Bonds.....	10,222,500 00
River Front Railroad Company's 1st Mortgage 4½% Bonds.....	212,000 00
Equipment Trust obligations.....	6,411,100 00

It will shortly be necessary for the Company to provide capital for the \$10,222,500 of Ten Year Gold Convertible 3½% Bonds, which matured November 1st, 1912, and for \$9,755,000 of Collateral Trust Loan 4½% Bonds, due June 1st, 1914, together with maturing equipment trust obligations, and also for new construction work, the extension and improvement of terminals, track and facilities, and the purchase of equipment. The

matter is now receiving careful consideration, but no decision has yet been reached as to the form or extent of the proposed financing.

The issues of Equipment Trust Securities during the year consisted of \$7,000,000 of Pennsylvania General Freight Equipment Trust Certificates of 1912, of which the Pennsylvania Railroad Company's proportion was \$1,572,100. There were thus furnished for the Pennsylvania Railroad Company 875 steel underframe and steel bodyframe refrigerator cars; for the Pennsylvania Company 1000 steel underframe and steel bodyframe automobile box cars; for the Pittsburgh, Cincinnati, Chicago & St. Louis Railway Company 300 all-steel coke gondola cars, and for the New York, Philadelphia & Norfolk Railroad Company 800 steel underframe ventilated box cars and 50 steel underframe gondola cars, an aggregate of 5725 cars.

During the year the final payments were made under 19 series of equipment trusts, the original issue of which amounted to \$19,000,000. These series covered 335 steel underframe box cars, 3000 steel hopper gondola cars, 6000 steel underframe long gondola cars, in service on the Pennsylvania Railroad; 500 refrigerator cars, 1500 steel hopper gondola cars, 600 steel underframe long gondola cars, 500 steel flat cars, sub-leased to the Pennsylvania Company; 210 steel underframe box cars, 300 steel hopper gondola cars, 400 steel underframe long gondola cars, sub-leased to the Pittsburgh, Cincinnati, Chicago & St. Louis Railway Company; 200 steel hopper gondola cars, sub-leased to the Cleveland, Akron & Cincinnati Railway Company, and 85 refrigerator cars sub-leased to the Grand Rapids & Indiana Railway Company, representing in all 16,620 cars.

The cars, therefore, have become the property of the respective companies which paid the cost thereof.

The expenditures for acquisition of property during the year were mainly to cover additional right of way for new lines, elimination of grade crossings, and for passenger terminal and station improvements at Broad Street Station, and other points in Philadelphia, and for the enlargement and improvement of freight stations and yard facilities at Hamburg Junction and Greenwich in Philadelphia, Elizabethtown, Altoona, Crescon, Uniontown, Tarentum, Peterson and New Kensington.

The block signal system on the main line between New York and Pittsburgh was further improved by the installation of automatic signals on the Philadelphia Division between Millerville Block Station and Branch Intersection, and on the Pittsburgh Division between Summerhill and Latrobe, and the work will be continued next year on the Middle and Philadelphia Divisions.

The Cortlandt Street Ferry House and Dock, New York City, which are being rebuilt, have so far progressed that the two ferry slips are now in operation, and the remainder of the work will be completed in 1913.

On the Newark Rapid Transit Line, described in the Annual Report for 1910, the Summit Avenue passenger station, Jersey City, was partially completed and opened on May 30th, 1912, and has since been finished and is accommodating a large amount of traffic. The Fourth Street Station in Harrison, N. J., on this line, will be completed early in 1913.

For the eastern section of the six-track system on the New York Division between Colonia, N. J., and Waverly, west of Newark, N. J., additional right of way has been acquired. This work comprehends station improvements, the elimination of fifteen grade crossings by the elevation of the four existing main tracks, and also the construction of two additional elevated tracks between those points. Construction work is now proceeding between Colonia and Elizabethtown, and should be completed in 1914.

The State of New Jersey, in which your Company and other lines have extensive mileage, is now considering the enactment of new legislation for the elimination of grade crossings. It has long been the policy of the Company to encourage the removal of grade crossings, and it has spent large sums of money for that purpose, but still greater results in this direction would have been attained had the States and municipalities been authorized, or willing, to co-operate in the outlay. The railroads in many instances have been the pioneers in the development of the towns, cities and territories served by them, and their existence has materially added to the population and prosperity of these communities. But with so many crossings still to be eliminated, the greatly increased payments for taxes and other items, and outlays for improvements in their railroads and equipment, which still confront

them, and are essential to public safety and convenience, it seems unfair and unwise to propose that the railroad companies should be burdened with either the entire cost, or an undue proportion of the cost, of eliminating grade crossings, many of which have been opened subsequently to the construction of the railroads, and against their strong protest. For these reasons, and on account of the great increase of motor, street railway, vehicular and pedestrian travel, it is hoped that the legislation now pending will be so framed in the public interests as to enable either the State, the municipalities or the railroads to take the initiative in the abolition of existing crossings, and to co-operate in carrying on the work by providing a fair and equitable division of the expenditure, as do the laws of New York, Massachusetts, Vermont, Ohio and other States.

The improvement of the passenger facilities in Philadelphia is still receiving consideration by the various departments in the service, and also by the Consulting Electrical Engineers of the Company. As outlined in the last annual report, it will necessitate (1) an increase in the tracks and platforms, and the enlargement and improvement of the station facilities at Broad Street Station and its approaches as far as West Philadelphia Station and Yard; (2) the widening of the bridge and its approaches over the Schuylkill River and the adjoining entrances to Fairmount Park at Girard Avenue, by the construction of two additional tracks and a revision of the signals and interlocking, which is now proceeding, and (3) the enlargement of North Philadelphia passenger station and its approaches by the addition of four new tracks with high level island platforms, and other improvements, including the relocation of the junction of the Chestnut Hill Branch with the New York Division at that point, which is now under contract.

In brief, the Philadelphia Terminal problem is to provide increased terminal facilities and approaches for approximately 20 years, for lines which equal eight double-track railroads.

An Ordinance was obtained from the City of Philadelphia to erect a new eight-track concrete steel bridge across North Broad Street near North Philadelphia Station.

Pending the results of the investigation of terminal improvements for Broad Street Station, Philadelphia, satisfactory progress is being made in the acquisition of the necessary real estate.

Extensive repairs and additions are being made to the West Philadelphia stockyards of the Company, and the piers at Greenwich, Philadelphia, are being improved and the dock extended to facilitate the loading of coal at that point.

On the Bald Eagle Valley Branch the grades are being revised, and the line is being double-tracked between Mount Eagle and the Howard Rolling Mills, and passing sidings are being extended to provide for the increased tonnage passing between the Main Line and the Erie Division via Tyrone and Lock Haven.

On the Pittsburgh Division four grade crossings are being abolished in Braddock, Pa., by the construction of three under-grade bridges and one overhead bridge; work is in progress on the elimination of grade crossings in the City of Pittsburgh at Homewood Avenue, and the work of eliminating all grade crossings in the Borough of Wilkensburg has commenced.

In West Brownsville Yard, Pa., the change of grade and extension of track facilities necessary to connect with the new double-track Monongahela River bridge at that point are almost completed.

On the Sunbury Division the double-tracking was further extended during the year by constructing second tracks at Boyd and South Danville, and between Port and Honey Pot Yard, Pa.

At Montgomery, Pa., the sixteen span double-track steel bridge over the West Branch of the Susquehanna River, replacing the single-track bridge at that point, will be completed this year.

The aggregate expenditures for Construction and Equipment during the year upon the owned and leased lines of this Company was \$16,322,247.38, for which the Company has been reimbursed by leased lines to the extent of \$727,502.41. The sum of \$588,107.06 was expended on the Western New York & Pennsylvania Railway, Cambria & Clearfield Railway, and other Branch Roads, and charged against Income as Expenditures on Branch Roads for Construction. The expenditures on the line owned and on the Harrisburg, Portsmouth, Mt. Joy & Lancaster Railroad and the United New Jersey Railroad & Canal Company, operated under

long-term leases, comprising the main line system between New York and Pittsburgh, amounted to \$14,706,637.91, which has been disposed of as follows:

Charged to Income as Extraordinary Expenditures	\$1,841,127.72
Charged to Reserve for Additions and Betterments Appropriated out of Income of previous year	3,652,567.37
Charged to Capital Account:	
Road	\$3,602,489.93
Equipment	5,610,452.89
	9,212,942.82
	\$14,706,637.91

Under the Balance Sheet prescribed by the Interstate Commerce Commission, the Road and Equipment Account includes not only these capital charges, but also similar expenditures made out of Income since June 30, 1907. Therefore, the expenditures charged against Income and against the Reserve for Additions and Betterments, created in previous year, have been so included.

The Additions and Betterments expenditures on the Harrisburg, Portsmouth, Mt. Joy & Lancaster Railroad and the lines of the United New Jersey Railroad & Canal Company, both operated by this Company under leases for 999 years, have also been included under the Road and Equipment Account as "Leased Lines—Road."

Expenditures during 1912	\$1,979,160.61
Expenditures June 30, 1907, to December 31, 1911	9,940,950.10
	\$11,920,110.71

An offsetting liability appears on the credit side of the Balance Sheet, entitled "Additions to Property since June 30, 1907, through Income," in which is carried not only the \$5,493,695.09, but also the payments through Income on account of Car Trust Certificates amounting to \$2,901,727.99 for 1912, and \$637,644.08 for previous years, aggregating \$8,033,067.16.

On account of principal and interest of Water Supply Trust Certificates \$524,351.81 were expended during the year and charged against Income.

The construction of the New York Connecting Railroad, owned jointly by this Company and the New York, New Haven & Hartford Railroad Company, as described in the report of last year, is proceeding. Additional contracts have been awarded for foundations and masonry of Bronx Viaduct; foundations and masonry of Piers for Bronx Kills Bridge, Randalls Island Viaduct, Little Hell Gate Bridge, and Wards Island Viaduct; for the bases and foundations of the East River Bridge on Wards Island and Long Island City; and for the Long Island Viaduct; for foundation and masonry between Lawrence and Stemler Streets; and for grading and masonry between its connection with the Pennsylvania Tunnel and Terminal and the Long Island Railroads at Woodside Avenue and Fourteenth Avenue.

The increasing traffic between Pittsburgh and Buffalo via the Allegheny Division and the Western New York & Pennsylvania Railway requires the construction of three tunnels and the reduction of grades and other improvements on the Allegheny Division between Pittsburgh and Oil City, and the reduction of grades and improvements of the railroad and yard facilities on the said railway between Oil City and Buffalo, via Brocton and the Chautauqua Branch, to more fully utilize it as the principal route for passenger and freight traffic between these cities, and the work has been authorized. As the result of these improvements the heavy grades will be restricted to relatively short distances between the said cities, and this route, which was objectionable because of heavy grades, will be over 58 miles shorter than the present route via Oil City, the Salamanca Branch, and Olean, and will have not only this advantage in distance, which will produce satisfactory operating economies, but its use will postpone for several years the double-tracking and other expenditures on the present route.

To meet the Construction and Equipment expenditures on the Western New York & Pennsylvania Railway during the year, advances aggregating \$525,212.30 were made by this Company, and charged against the net income of the Lessee Company. This Company will also be required to provide funds for the improvements heretofore mentioned on that railway during the year 1913.

On the Cambria & Clearfield Railway, the Cherry Tree & Dixonville Railroad, and the Pennsylvania, Monongahela & Southern Railroad, various short branches were built to reach coal-mining operations.

This Company advanced \$184,591.36 to the Cambria & Clearfield Railway Company to meet its construction expenditures, which was charged against the net income of the Lessee Company.

It has been deemed advisable to absorb the Cambria & Clearfield Railway Company, which for many years has been owned and operated by this Company in connection with its main line, the construction of that road and its several constituents having been promoted by this Company for the development of the bituminous coal traffic in the Clearfield region. The necessity for maintaining that Company as a separate corporation no longer exists, and the agreement providing for its acquisition will, in accordance with notice given to the stockholders, be submitted for approval at the annual meeting.

The sum of \$94,408.94 was advanced to the Pennsylvania, Monongahela & Southern Railroad Company to meet its construction expenditures for 1912, for which it reimbursed this Company by the issuance of its stock and bonds in equal portions.

A fireproof grain elevator of enlarged capacity and modern facilities is being erected by the Girard Point Storage Company at Girard Point, Philadelphia, to take the place of the present elevator.

On the Philadelphia, Baltimore & Washington Railroad the work of reconstructing the bridges over the Gunpowder and Bush Rivers is proceeding, and will be finished during 1913. The reconstruction of the bridges over Steamers Run, Back River and Gwynn's Falls will also be undertaken in the present year.

The installation of automatic block signals on the Maryland Division has been completed between Washington and Baltimore, between Principio and Iron Hill, and between Ruthby and Wilmington, and the work will be continued next year.

On the Northern Central Railway the work of enlarging the Mount Vernon Yards, Baltimore, was entirely completed. The freight facilities at York, Pa., Highlandtown, Md., and at Marysville Yard are also being enlarged and improved to accommodate the increased traffic. These improvements will probably be completed in 1913.

The execution and delivery of the proposed lease by this Company of the railroad, property and franchises of the Northern Central Railway Company is still delayed by litigation. Under its provisions, which have been fully explained in the Annual Report for 1910, the lease and rental payments became effective January 1, 1911, and an accounting between the lessor and lessee from that date will be necessary if and when the lease has been duly executed and delivered in conformity with its terms and conditions.

The Wilkes-Barre Connecting Railroad Company was incorporated during the year jointly by this Company and the Delaware & Hudson Company to provide a line, seven miles in length, from Buttonwood Yard on the Pennsylvania Railroad, west of the City of Wilkes-Barre, to Hudson on the line of the Delaware and Hudson Company, to facilitate the interchange of traffic between the two roads, and avoid its movement through the business center of that city, and via the tracks of other railroads.

The surplus property fronting on Seventh Avenue between Thirty-second and Thirty-third Streets, New York City, owned by the Pennsylvania Tunnel & Terminal Railroad Company, a subsidiary of this Company, has been conveyed to the Pennsylvania Terminal Real Estate Company looking to its future development.

During the year the Company made advances to the Long Island Railroad Company aggregating \$2,625,000, for the improvement of its railroad and facilities, and the construction of new lines and equipment, and will receive therefor securities of that Company.

Minor advances were also made to the Pennsylvania Tunnel & Terminal Railroad Company in 1912, for which its certificate of indebtedness to this Company has been issued.

The pensions paid during the year amounted to \$646,375.34.

The stockholders will be asked to authorize an increase in the annual sum set apart for pension purposes from \$700,000 to \$750,000 per annum, and to give authority to the Board of Directors to hereafter increase the pension appropriation to such extent as may, from time to time, be necessary to meet the purposes for which the Pension Department was created; such increase to be reported to the stockholders.

The additional appropriation is necessitated by the increasing number of pensioned employees, especially between the ages of 65 and 69 years, and the advances in wages made from time to time, which increase the average pension allowances.

The securities held by the Company December 31, 1912, at a valuation of \$331,909,154.32, produced a direct income during the year of \$14,527,491.56. During the year the Company increased its holdings of Norfolk & Western Railway Company Common stock by \$4,788,000.00 through the conversion of a like amount of Norfolk & Western Railway Company Convertible bonds, to which it had subscribed at par, during the year, and also acquired \$3,000,000 of Pennsylvania Terminal Real Estate Company stock.

Effective May 8, 1912, the name of the Buffalo and Allegheny Valley Division was changed to Northern Division.

By order of the Board,

SAMUEL REA,
President.

STOCKHOLDERS MAY OBTAIN COPIES OF THE ANNUAL REPORT COMPLETE BY APPLYING TO OR ADDRESSING
LEWIS NEILSON, SECRETARY,
BROAD STREET STATION, PHILADELPHIA, PA.

Classified Opportunities

MEN WANTED

INVENTORS WANTED TO WORK ON SALARY. National Invention Corporation, 306 Hill Bldg., Nashville, Tenn.

SECOND HAND in spinning-room wanted; new mill in Maryland; man with family preferred. Address No. 1215, care Manufacturers Record.

ESTIMATOR WANTED in office of general contractor; must be able to take off quantities correctly and quickly on all classes of buildings; man with technical training preferred; state salary and experience. No. 1213, care Manufacturers Record.

WANTED—A first-class man who understands the manufacture of cottonseed products and commercial fertilizers, who can invest from five to ten thousand dollars, to take active management of plant west of Mississippi River. State age, experience and references in first letter. Address No. 1229, care Manufacturers Record.

WE DESIRE the services of a high-class man familiar with every detail of pipe, fittings and mill supplies, in the position of assistant to manager and to devote a part of his time to traveling. Location, large Southern city. This is an opportunity for an exceptionally capable man, as no other will be considered. Address, with full information as to salary, experience and references, No. 1182, care Manufacturers Record.

AGENCIES WANTED

WANTED—To represent manufacturers exclusively in Texas; staple lines preferred; tri-city service—Dallas, Houston, San Antonio; references furnished. Standard Supply Co., 709 Gibbs Bldg., San Antonio, Tex.

WANTED—Additional accounts by successful brokerage and manufacturers' agency. W. S. Hill, Jacksonville, Florida.

WANTED—A position as representative in Memphis, Tenn., of some substantial manufacturer of anything in building material, by a man who has had ten years' experience with Memphis architects and contractors. Can produce results. References furnished. Address No. 1217, care Manufacturers Record.

MANUFACTURERS wishing to be represented in St. Louis, I will represent one or a few desirable manufacturers of mill supplies; salary or commission; highest references. E. T. Donahoe, 5070 Westminster Pl., St. Louis, Mo.

MARYLAND AND DISTRICT OF COLUMBIA AGENCY WANTED for office specialties and articles selling to the hardware trade by an experienced salesman. Other exceptionally good propositions will also be considered. Address No. 1214, care Manufacturers Record.

WANTED—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel L. Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

SITUATIONS WANTED

PUBLICITY MAN AT LIBERTY AFTER MARCH 1.—Any commercial club or chamber of commerce desiring the services of a trained publicity man with experience as secretary and more than twenty years in practical newspaper and development work, is invited to write No. 1209, care Manufacturers Record, for information.

WANTED—Position by man of about 15 years' experience in manufacturing showcases and constructing and designing wood-working machinery; will take some stock in a plant on good financial basis; no bad habits; small family; good references. Address No. 1219, care Manufacturers Record.

COMMERCIAL SECRETARY at liberty after July 1 desires location in wide-awake Southern town, 15,000 or over; experienced; can produce results; familiar with modern methods on membership, civic work, industrial work, wholesale and retail trade extension; leaving present position on account of cold winters. Address No. 1218, care Manufacturers Record.

MANUFACTURERS—Let us furnish you the man you need in your experimental department, or let us furnish ideas. We originate, to your order, new devices or improve old ones. Ask us about our free service. The National Invention Corporation, 306 Hill Bldg., Nashville, Tenn.

ENGINEERS

DESIGNS, plans and estimates made for reinforced concrete and steel bridges and culverts. Surveys and plans made for highways and farm drainage. W. G., 202 Prospect Ave., Roland Park, Md.

BANKS

THE PALMETTO NATIONAL BANK, Columbia, S. C., capital \$250,000, solicits accounts of banks, firms, corporations and individuals, either commercial or savings accounts.

RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 24 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.

EDUCATIONAL

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical and Electrical Engineering, and General Science, leading to the degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Bachelor of Science (B.S.). Special courses in engineering and science. Splendidly equipped new engineering laboratories. Send for catalogues to Registrar.

TYPEWRITERS

\$37.50—ROYAL TYPEWRITER, REBUILT LIKE NEW. Send for special bargain list of used machines taken in exchange for re-builts. R. J. Nicholson, 41 St. Paul St., Baltimore, Md.

TYPEWRITER SUPPLIES

HIGHEST QUALITY TYPEWRITER SUPPLIES.—Exclusively oil carbon and mineral coloring matter used in manufacture of carbon paper, which enables us to guarantee absolutely clean work and permanent copies. Our ribbons are made of imported silk, giving much additional strength. They are guaranteed non-filling and long wearing. Address: A. Sylvester Edmonds, care of American Ribbon & Carbon Co., 507 Gould Bldg., Atlanta, Ga. Please mention Manufacturers Record in writing.

BLUEPRINT MACHINE

FOR SALE—A 42-inch Everett-McAdam blueprint continuous machine in good condition. For particulars and terms address J. H. Johnston, Box 126, Tuscaloosa, Ala.

CHEMISTS

MANUFACTURERS.—Economy in operation and uniformity in product best gained by careful analytic control. Fully equipped for analysis and control of industrial processes and products. Holtzendorff Laboratories, Memphis Trust Bldg., Memphis, Tenn.

CAPITAL WANTED

CAPITAL WANTED.—A party with \$10,000 interested in manufacturing yarns from cotton waste can get an attractive proposition by addressing No. 1211, care Manufacturers Record.

INVENTOR wants financial aid to manufacture a new inter-combustion engine, which is of the two-cycle type, open crank case, and air cooled. This engine can be water cooled and made both a two or four cycle engine and still retain all of its merits. Address R. T. White, Macon, Ga., care of the New Ragan Hotel.

BUSINESS OPPORTUNITIES

BUILDING FUNDS WANTED.—Parties owning jointly valuable central business property in live Southern city wish to secure funds for erecting store buildings; want money for five years; want \$25,000 to \$50,000; have ample high-class improved business and residence property and farm lands absolutely unencumbered to offer as security. Address "Building Funds," 904 Fourth National Bank Bldg., Atlanta, Ga.

SOMETHING NEW in an oil gas producer: simple, cheap and effective; easily connected to any stationary, marine or automobile engine; uses cheap kerosene fuel or crude oil. For full information address Hicks Gas Power Co., Beaumont, Tex.

WE DESIRE to finance, manufacture and sell any first-class machines made of iron, steel, brass or wood; have fine shop and selling facilities. P. O. Box 823, Charlotte, N. C.

A CONTRACTOR with both standard and narrow gauge steam shovel outfits, now idle, wants work, and will make close price on work of sufficient magnitude. Address P. O. Box 955, Atlanta, Ga.

WANTED—Good mechanics to use and sell graduated caliper and which-way levels; paying proposition. Ernest G. Smith, 234 North 3d St., Columbia, Pa.

PARTNER WANTED with capital for real estate business in North Carolina; will guarantee eight to ten per cent.; two dollars security for every dollar invested; best of bank references. Address R. V. Brawley, Statesville, N. C.

\$5000 WORTH OF STOCK for sale in an incorporated contracting Co. doing business in the best city in the Southwest. The position of superintendent at a salary of \$150 per month goes with the stock. You don't have to pay all cash. Plenty of work on hand and lots in sight. Address No. 1216, care Manufacturers Record.

MANUFACTURERS—INVESTORS.—No quicker way to fortune than to market a good invention. We have them for sale. Write Adam Fisher Mfg. Co., 88-16, St. Louis, Mo.

WANTED—A partner with \$10,000 to take interest in a business which has paid \$8000 a year for four years. Address Box 800, Richmond, Va.

STORE FOR SALE

STORE FOR SALE.—Entire stock of ladies' and gents' shoes, furnishings, notions, etc.; owners unable to give it their attention; located near manufacturing plants employing over 1000 men. Fulton Realty Co., Wheeling, West Virginia.

VIRGINIA HOMESTEADS

VIRGINIA.—Gentleman's country home to let for the winter; beautiful colonial house, furnished, with hunting privileges, 20 miles west of Richmond, on picturesque Upper James River; good train service and automobile road; local and long-distance phone; large brick, 18 well-lighted rooms, two baths, hot-water heat, open fireplaces; beautiful lawn; six acres; splendid hunting; many deer, fox, rabbits, quail, ducks, geese, wild turkey; close to mountain and ocean; delightful winter; never really cold; bright crisp days in which "to exist is to enjoy." W. E. Harris, 911 E. Main St., Richmond, Va.

FACTORY SITES

FREE, FREE, FREE SITES FOR FACTORIES on reasonable conditions; splendid locations and transportation facilities; a growing, thriving city; 8 railroads; numerous steamship lines, and many other advantages. Address Ballentine Realty Corporation, Norfolk, Va.

INDUSTRIES WANTED

MISCELLANEOUS

KENOVA, W. VA., offers unsurpassed advantages for manufacturing enterprises—free sites, cheap gas, cheap coal, three trunkline railroads with belt line and switches, interurban electric line to cities in West Virginia, Kentucky and Ohio; two navigable rivers; various kinds of raw materials easily available; best markets economically reached. Kenova-Huntington Land Co., Huntington, W. Va.

JANE LEW, in West Virginia's greatest gas field, wants industrial plants; cheap gas, cheap factory sites, good railroad facilities, pleasant and economical living conditions. Geo. B. Waggoner, Treas. Board of Trade, Jane Lew, W. Va.

MEMPHIS is the greatest distributing city in the South, because she is the gateway and geographical center of Dixie; because she has 17 railroads and the Mississippi River, equal to as many more railroads "in making the rates." Memphis is the greatest inland cotton market and greatest center of hardwood production in the world, and is in the midst of a most rapidly developing and wonderfully fertile section with most eager markets. Memphis offers unparalleled advantages to distributing houses of all kinds and all sorts of manufacturers, especially woodworking establishments and cotton and cotton products and structural-iron mills. Memphis has the greatest business body in the country ready to welcome and co-operate with you. Address John M. Tuther, Secretary Business Men's Club, Memphis, Tenn.

INDUSTRIAL PLANTS FOR SALE

COTTON MILL

DON'T PASS THIS.—Best bargain in Texas in 5000-spindle cotton mill. For particulars apply Texas Realty & Loan Co., Gonzales, Texas.

COTTON WASTE YARN MILL

FOR SALE—Cotton waste yarn mill; 6 sets cards, 3600 spindles; ample help; good demand for product; healthy location; live town; small capital needed. Address No. 1212, care Manufacturers Record.

SASH, DOOR AND BLIND FACTORY

SASH, DOOR AND BLIND FACTORY FOR SALE.—A well-equipped and modern woodworking plant in Mobile, Ala.; real estate consists of practically two squares, upon which there is a well-built mill building of ample size; in addition, a concrete office, glazier's warehouse and commodious storeroom; machinery is modern, practically new; comprises complete woodworking outfit, including boilers, engines, shafting, planing mill and drykiln with appurtenances.

Location convenient to business district; city water; cheap and abundant electric power to be had from local company if desired; railroad siding into yard.

Raw material plentiful; fine local trade with immense opportunity for selling output in surrounding district.

Price \$35,000; easy terms; 6 per cent. deferred payments. Jas. K. Glennon & Co., Mobile, Ala.

BOX FACTORY

BOX FACTORY.—Well-constructed plant for sale, all or an interest and position as manager if you prove to be the right man and with means to do business. You do not want junk, nor do I want to lose time talking to an idler. Come and investigate. Good location and plenty of timber at reasonable prices. Hope is also good location for drapery plant. Address A. F. Dyke, Hope, Ark. Factory Locations and Real Estate Broker.

FLOUR MILL

FOR QUICK SALE.—Complete three-stand flour mill (Ty-sa-man make); best equipment; has been run about four years; in No. 1 condition. Also set of best corn burrs fully equipped, and one 25-foot 3-foot burr Fitz steel overshot, good as new. Price \$400 on the dollar. Can sell the wheel separate. Address J. E. Cloninger, Hickory, N. C.

MINERAL AND TIMBERLANDS, WATER POWERS AND MISCELLANEOUS PROPERTIES

TIMBER TRACTS, Coal Lands, Ranches, Farms, etc., anywhere, bought, sold, exchanged. Write Chas. Philidus, 388 Pleasant Ave., New York.

GOOD FLORIDA LANDS.—Deal direct with owners. If you want good, well-located lands, either small or large tracts, or desirable city property, we have bargains to offer you. D. F. Conoley, 400 Zack St., Tampa, Fla.

FOR SALE.—Large list of farm, mineral and timber lands in six Southern States. Can fill your orders in acreage prices, and location. Now is the time to invest in the Southern States, while prices are reasonable. If interested, send for literature. Hammond Colonization Realty Co., Room 20 Watts Bldg., Birmingham, Ala.

ALL KINDS of real estate for sale and good investments in the Sarasota district. Write Harry L. Higley, Sarasota, Florida.

FOR QUICK SALE AT HALF PRICE, a \$6000 suburban home; 10 rooms; 1½ acres land, fenced; on electric car line. Also 10 acres timbered land. A good farm, 42 acres, cheap. G. G. Hyder, Hendersonville, N. C.

IF YOU are interested in timber lands, turpentine, phosphate and colonization tracts, sawmills, hotels, business lots, farms, groves, cottages, winter homes, etc., the Dixie Realty & Promoting Co., H. Jensen, 409 Masonic Temple, Jacksonville, Fla., will have what you want.

IF YOU WANT cypress lands, pine lands, cut-over tracts, colony tracts, ten and twenty-acre tracts, orange groves, truck farms, write to G. C. Rogan, Box 535, Lakeland, Fla. Fifteen years in the State.

CITY PROPERTIES

IN THE DISTRICT OF COLUMBIA, 10 acres extremely desirable for subdivision, fronting on 16th street and the National Rock Creek Park, at a bargain price. Property immediately adjoining has been subdivided, and in a few months almost \$100,000 worth of lots have been sold at 20 cents to 50 cents a square foot. Full particulars upon request. Robert E. Heater, Colorado Building, Washington, D. C.

CITY AND FARM PROPERTY

LARGE ESTATE of Madison Jones for sale. This estate includes city and farm property in Greenwood, Miss.; Greensboro, Ala.; Sheffield, Ala., and Cresson, Texas. Fine alfalfa farms and cotton lands. Cox's island on banks of muscle shoals. 160 acres of fine farming land. Thos. H. Jones, Executor, Greenwood, Miss.

GRAVEL PIT

FOR SALE.—Gravel pit, 30 miles from Savannah, Georgia, in 50 yards of railroad; will wash 75 per cent. roofing gravel. Address R. L. Walker, Savannah, Georgia.

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